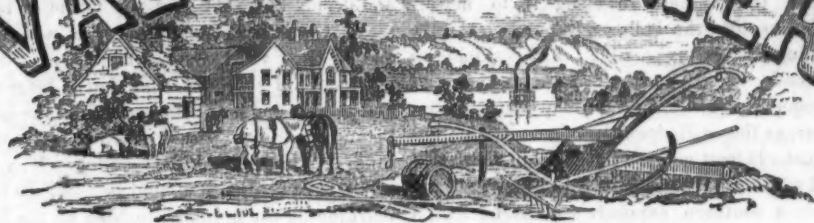


# VALLEY FARMER



NORMAN J. COLMAN, EDITOR.

BENJ. BRYAN, PUBLISHER.

VOL. XIV.

ST. LOUIS, MO., MARCH, 1862.

NO 3.

**THE VALLEY FARMER,**  
AN AGRICULTURAL, HORTICULTURAL AND  
STOCK JOURNAL,  
PUBLISHED ON THE FIRST OF EACH MONTH, AT  
No. 97 Chesnut Street,  
**SAINT LOUIS, MO.**

TERMS (always in advance), 1 copy, one year, \$1 00;  
4 copies, \$3 00; and any greater number at the  
same rate—only 75 cents per copy.

Any one sending Two NEW Subscribers and  
Two Dollars, shall receive a copy one year GRATIS,  
as a Premium. Remittances at our risk.

Advertisements—\$15 00 per page; \$10 00 per half  
page; and \$2 00 per square, each insertion.

ADDRESS, **BENJ. BRYAN, PUBLISHER,**  
97 Chesnut St., Saint Louis, Mo.

## ON THE CULTURE OF COTTON.

In our last issue, we promised to give directions for the proper culture of cotton, and we now undertake to redeem our promise. The great interest which is felt in its culture in that portion of the Northern States south of the parallel of 40° north latitude, and the large breadth which will be planted, are sufficient reasons for inducing us to devote some space to giving instructions on its cultivation.

That cotton has been cultivated by nearly all the old settlers in the south half of Illinois and Missouri, and that a fair yield was obtained, there can be no doubt. It was then worked up into fabrics for domestic use, by every family, as wool now is, except it was done on a larger scale, and by all the inhabitants. It was a slow and tedious process to card all the cotton by hand, and to spin it and weave it by the same means. As time passed by, the Eastern mills commenced the manufacture of cotton goods en-

tirely by machinery, and our good old mothers found their fingers were no fair competitors for spindles and looms run by water or steam power, and gradually the culture of cotton and the domestic manufacture of goods therefrom were abandoned. It was not because cotton would not grow well, or produce a fair yield; but because the goods could be manufactured so much cheaper by machinery than by hand.

The present war has greatly enhanced the value of cotton and of the goods manufactured therefrom. If cotton will succeed, and a fair yield can be obtained, is it not better to cultivate it than many other farm crops, for the pecuniary returns? What other crops can be raised with a promise for high, or even fair prices? It is true, good fruit always commands good prices. The prospect is fair also for good prices for tobacco, castor beans, flax seed, and sirup from sorghum. But the general farm crops, such as corn, oats, wheat, barley, pork and potatoes, now bring low prices, and there is not much prospect for higher rates while our war continues, while cotton will continue to advance in price during the same period.

We by no means advise everybody to pitch largely into the culture of cotton; but those having soil adapted to its culture, and who will properly prepare the soil, plant the seed, and give careful culture to the plants, we think, from the testimony before us, may rely upon as good or better returns by raising this crop than many others, while cotton commands the present high prices. Some will be successful, and others unsuccessful, just as there are successful and unsuccessful cultivators of everything else.

### SELECTION OF THE GROUND.

We, by all means, advise those having the

choice of locations, to select a field sloping to the south, so as to give the plants all the benefit of the sun, possible. Cotton is emphatically a sun plant, and requires all the power of the sun in this climate to bring it to maturity and to ripen the bolls early enough to give as many pickings as possible. Fields sloping to the south, will ripen their bolls sooner, and consequently will continue to produce cotton longer, as they will ripen them in succession until frost. If frost comes very early, of course the yield will not be so great, as if it came very late. When a southern exposure cannot be had, a south-eastern or south-western one should be chosen, but by all means avoid a northern slope.

#### SELECTION OF SOIL.

A light, mellow, rich soil is preferable to all others. By all means avoid a heavy, wet, clayey soil. A deep, soft mold, with a slight intermixture of sand is desirable. Some cultivators inform us they have had the best success on sandy soil. All agree that a wet, sticky, clammy, soil is not good for cotton. The soil should be open, porous, easily penetrated by the rays of the sun, and permitting the excess of moisture to settle below the roots of the young plant. If the soil is inclined to be wet, it should be plowed into lands or back-furrows of about eighteen feet each, with an open, dead furrow between the lands, always kept opened to carry off all excess of moisture. These lands can be plowed two or three times, if necessary, throwing each time the soil towards the ridge or centre of the land, and thus preventing any possibility of the seed or plants being injured by an excess of water. An excellent plan, also, is to throw two furrows together for the row, and on this ridge, after being smoothed down a little, plant the seed.

#### PREPARATION OF THE SOIL.

The remarks last made, might more properly come under this head. In the great diversity of soils it is difficult to say what should be the proper preparation. There is no farm crop which requires a better preparation of the soil. It should be put in the finest possible tilth. If deeply plowed, the better. A sub-soil plow, following the common plow, opening and loosening the sub-soil is highly advantageous to cotton, as it is to all other farm crops. The soil should not be worked at all when wet. Two or three plowings, when dry, and double that number of harrowings, so as to make a fine, deep, mellow, well pulverized bed for the young roots of the plant, would not be labor thrown away, but well rewarded. Undoubtedly fall

plowing would be highly beneficial, by turning up the sub-soil, and allowing the frost and atmosphere to thoroughly pulverize all the particles thus exposed. The soil should be finely and deeply harrowed, for the reception of the seed. Cultivators must not expect a fine crop and a large yield, if they merely turn over a few inches of soil, and leave that in large clods and lumps, and plant the seed while the land is in this condition. No crop will do well on land thus prepared, much less cotton. If a field roller is to be had, it should be used just before marking off the ground, crushing all the lumps and clods, and pressing the soil evenly and smoothly down. The roller is a necessary appendage to every well managed farm.

#### KIND OF SEED.

The Upland Cotton is the only kind that will succeed here, and the farther North that can be obtained, the better. We presume that from Tennessee will be the best that can be had.—The Sea Island Cotton will not succeed at all here. It succeeds only in a very limited scope of country where it has become so celebrated. It requires some eight or nine months to bring it to perfection, while the Upland Cotton will ripen here in less than four months from the time of planting.

#### DISTANCE AND MODE OF PLANTING.

The plants should stand in rows, laid off by a common corn marker, or a very small, shallow running plow, from four to five feet apart, depending upon the strength of the soil, unless the ground is thrown in ridges as before mentioned. The plants left for producing the cotton, should stand about fifteen inches apart in the row. The seed is generally thickly dropped in drills so as to be sure of a good stand, and all unnecessary plants, when a few inches high, are destroyed by the hoe. It is advisable, where it can be done, to have the rows run North and South, so as to obtain a greater benefit from the sun. If the seed stands in tepid water for 24 or 48 hours before planting, it will cause them to germinate sooner and more certainly. The seed should be covered to the depth of about one or one and a half inches with fine soil—but not more.

#### TIME OF SEEDING.

The seed should not be planted till all danger of frost is over—about the time beans are generally planted. The plant is tender, and a visit from Jack Frost will be a fatal affair. From the first to the tenth of May is the proper time for planting the seed in this latitude. In about

a week from the time of planting, the young plants will begin to make their appearance.

#### CULTIVATION.

When the third and fourth leaves begin to appear, it is time to commence working among the plants. If the ground is light and mellow, and a good plowman is to be had, let him run with a one-horse plow close to the row, throwing the furrow from the plants to the centre. The hoe must now follow the plow, cutting out the weeds and grass from the plants. If the plants come up thickly, they can be reduced somewhat at this hoeing, though it is safer to wait till the next time the hoe passes over the field. In ten days or two weeks from the first plowing, let the plowman turn the furrow from the centre of the row to the plants, throwing a little earth in among them, if the ground is fine enough to cause no injury to them.

It must be borne in mind that the young plant is exceedingly tender and delicate; and the smallest bruise or injury from clods, the hoe, or plow, will destroy them. The hoe should follow, reducing the plants to two or three where one is to stand, cutting out the weeds and grass, and burying them where this is not done. By this means they are smothered and destroyed. If the soil is not mellow, the plow should be kept out, and the work should be done with the horse cultivator. After the second plowing, the horse cultivator and the hoe should do the balance of the work. The weeds and grass should be kept out, the ground should be kept well pulverized, and should especially be worked after every rain, breaking up the crust. About the third time the plants are passed over with the hoe, all the plants should be cut out, except one good strong plant every fifteen inches apart in the row. After the plants have obtained about the height of three feet, and the branches begin to interlock, any further culture may be dispensed with. It is quite important to work the crop till this period. Of course, the later workings should be shallower and less close to the row than the first ones, or the roots (which by this time have spread pretty freely) will be injured by the workings.

The next business will be the picking, but we will speak of this, and of ginning and packing in a future number.

Plow deep while sluggards sleep, and you will have corn to sell and to keep.

Hunger never saw bad bread.

#### Sugar from Sorghum and Imphee.

We shall devote considerable space in the present volume to the culture of Sorghum and Imphee, both for sirup and sugar. We are now using on our family table, sirup made from Sorghum by Mr. B. Smith, of Cuba, Mo., which is of a beautiful golden color, and pleasant to the taste. For our own use, we prefer it to any New Orleans or Sugar House Molasses we have ever tasted, and think it nearly equal to the best refined Golden Sirup. We have seen a number of fine specimens of sugar made both from the Sorghum and Imphee.

In an article in the *Missouri Republican*, samples of sugar and molasses are thus referred to:

"We are indebted to Mr. Reynolds, the indefatigable Secretary of the Illinois State Agricultural Society, for several specimens of sugar and sirup, made from the Chinese and African cane, raised in the States of Illinois and Ohio.

"Serious doubts have been entertained whether the sirups from these canes could be made to granulate, and a general opinion prevailed that the Sorghum and Imphee could be profitably cultivated only for the purpose of making sirup. Such doubts and opinions may now be dismissed. The specimens of sugar exhibited at the last Fair of the Illinois Agricultural Society, upon which the Secretary, Mr. Reynolds, will shortly issue an important report, show a perfect crystallization, possessing handsome color and agreeable taste.

"We have before us four samples. One is from the crop of J. H. Smith, of Quincy, Illinois. It is from the African cane, or Imphee. The product is darker than the Chinese, but probably has undergone an imperfect refining process. It yields fifteen hundred pounds per acre, and the producer estimates the cost at five cents per pound.

"The remaining three samples are from Ohio crops of the Chinese cane. One is from W. Carothers, of Lexington, Ohio. The crystal is hard and sparkling. A second specimen is from Henry Cook, of Mansfield, Ohio. It is a lively, straw-colored sugar, very inviting in appearance, and would attract attention in any display of sugars. The third Ohio specimen is from George J. Maxwell, of Lexington, Ohio; a light-colored lively sugar—quite handsome and attractive.

"These sugars are all worthy the attention of producers and dealers. They prove that on the prairies of Illinois—in the latitude of Ohio, Indiana, and Illinois—sugar may be cultivated, and that processes have been arrived at by

which a well granulated article, indispensable for domestic use, may be furnished at a low price.

"Mr. Reynolds has furnished us with three samples of sirup molasses. The first is from Samuel Hooker, of Rushville, Illinois. It is in a somewhat crude state, but rich in saccharine matter. In proper hands, with suitable machinery, it would become a choice article. The producer and the Agricultural Society are unable to determine the species of cane from which this sirup came.

"A second specimen of sirup is from J. H. Smith, of Quincy, Illinois, from the Chinese cane. It is a very handsome article, fine color and agreeable taste. It commanded the first premium at the fair. For the table or culinary use, it would prove satisfactory, and be quite as acceptable as any Louisiana or Havana sirups.

"The third sample sent us, is probably the best in condition of any. It is from Belcher's Chicago Steam Sugar Refinery. The crude sirup of Chinese cane was refined there, and a beautiful article for market produced. In color, richness, and flavor, it equals any of the table sirups.

"The quantity of sirup that can be produced from an acre of cane is variously estimated.—Reports made to Mr. Reynolds, range from 80 to 300 gallons per acre. The average is about 150.

"The reports of cost of producing, range from 20 cents to 50 cents per gallon, the average being about 30 cents. Parties have contracted to deliver it in Springfield next fall at 20 cents. The reports furnished afford some data from which to estimate the entire amount raised in the State of Illinois last year. But they are in so many cases conjectural that only an approximate estimate can be made. It is stated that in Adams county six thousand barrels of sirup were made. In Whiteside county forty-six thousand gallons are reported, or about eleven hundred barrels—a larger quantity as the report says, than was ever imported into the county in any one year.

"We learn from Mr. Reynold's that the Society is seeking to obtain a supply of the purest and best seed for distribution among the farmers. His report will undoubtedly furnish such an amount of reliable information as will stimulate production this year to an unprecedented extent.

"The samples of sirup and sugar which he has furnished us can be seen at this (*Republican*)

office, by any who are curious in such matters, or who want satisfactory evidence that handsome sugar crystals can be produced from the juice of the Chinese and African cane."

#### UNDER-DRAINING LAND.

ED. VALLEY FARMER: Our farmers, here, are quite interested in the subject of under-draining, and are confident that if our land was thoroughly drained it would become much lighter and more productive. Our prairie is high and rolling, and well traversed by ravines; but the soil is a clayey loam, from 18 to 24 inches deep, with a hard-pan sub-soil, which, in case of wet weather, unfits it for cultivation, and when dry it becomes very hard and considerably baked. We have suffered much from drouth for the past three years. We think it is very much owing to this imporous and compact nature of the soil. Our most intelligent farmers think under-draining, in its effects, is well calculated in a good measure to remove this unfavorable quality of the soil, and render it more mellow and friable, and in other respects so to improve it as to richly pay for the trouble and expense.

They have no means to spare this year, owing to the loss of crops, but are very desirous in some way to give this thing a trial.

Our Farmers' Club desired me to write to you for information in regard to Mole plows—the best—most approved—the cheapest and most effective. What plow would you recommend? who is the manufacturer? where are they made, and where can they be best obtained?

We might like to obtain the plow, or induce one that has it to come among us, and drain for us by the rod. Whatever information or aid you can give us in this business, will confer on us a special favor.

In the *Valley Farmer* for April, 1860, I find A. Hammond's drain plow represented and highly recommended. Is there any better, and can that still be obtained in St. Louis? Please inform us by letter at your earliest convenience.

Very respectfully yours,

Hoyteton, Ill. Feb. 1, '62. JOSIAH MILLER.

[Our friend Miller is on the right track. Under-draining is what the soil needs, that he refers to. After it is under-drained, let the sub-soil plow be used, and there will be no more complaints of drouth. The yield per acre will be doubled—if not more. A. Hammond, of Jacksonville, Ill., has the best Mole drain plow with which we are acquainted. In a tenacious clay sub-soil, it will answer well for



draining purposes—not so well, perhaps, as tile—but the cost of draining is not one-twentieth as great.

In a late conversation with the Agent of Fowler's Steam Plow (England), he informed us that the Mole drain plow was extensively used there in draining clay lands, and that it answered just about as good a purpose as tile drains. He had not heard that the drains ever wore out or filled up. From all the testimony we have seen or heard of, we think the Mole drain plow is destined to be of almost inestimable value in the prairie regions of the West. All our prairie lands need to be drained, when they will be the finest farming lands on the face of the earth.]

#### Letter from Hon. M. L. Dunlap, on the Culture of Cotton.

ED. VALLEY FARMER: I see by the *St. Louis Democrat*, that you have a supply of Tennessee Upland Cotton Seed, which you propose to distribute among your new subscribers at the rate of two quarts each, sufficient to plant over half an acre. What I have to say is this, that two quarts is not a safe amount of seed to plant on half an acre. If cotton seed was all perfect, and would freely germinate, two quarts would be ample; but in the history of cotton seed this is not true. In the best samples, there is always a large per-centage of imperfect seed. All tropical plants when acclimated in the temperate zone, contain more or less imperfect seed, and the cotton plant is not an exception. In planting, the rows are laid off four to five feet wide, according to the richness of the soil, and hills sixteen to eighteen inches apart. These hills are to be thinned to a single plant. Now, if the seed was all to be depended upon, one or two seeds would be sufficient; but no person accustomed to grow cotton would think of putting in less than six to eight seeds to the hill, to insure a stand. Of course, many of these hills will contain as many plants as seeds planted, but as it is very desirable to have a full stand, it is much safer to use a good supply of seed, planting the two quarts on one-third rather than half an acre of land. Another point that farmers should guard against, is planting in cloddy ground, or planting too deep. The cotton plant is very delicate on its first appearance, and will not bear hard usage. The ground must be put in fine tilth, by the use of the harrow and roller, or it is useless to plant. As hundreds of farmers will plant cotton this season that never saw it growing before, we may expect many individual failures, even

among well informed persons, yet we look upon the enterprise as promising success. Farmers should remember that it has taken eight years to learn how to grow Sorghum and to make its juice yield a fair return; and even now farmers are not well agreed as to the time and mode of planting. In its early stages it is similar to that of cotton, but, when it does start, it makes a vigorous growth. A bushel of cotton seed will weigh from eighteen to twenty pounds, and contain about two hundred and seventy seeds to the ounce. In Tennessee from half a bushel to a bushel of seed is used to the acre. I would, therefore, recommend that not less than a peck of seed be used to the acre.

Yours truly, M. L. DUNLAP.

Champaign, Ill. Feb. 3, 1862.

#### COTTON IN ILLINOIS.

Mr. Lorenzo Edwards, in *Chicago Tribune*, says: "I moved to Madison county, Ill., in 1817, where I lived till 1824; during all those years I and my neighbors raised cotton, which we manufactured by hand into clothes for our families. The cotton was a surer crop than wheat is now. Common brown domestic was then worth seventy five cents per yard, and it was an object to make our own cotton goods."

We planted our cotton as early as possible for the frost, in drills four feet apart, and thinned the plants to a foot apart when well started; we threw these furrows together, commonly, to form a dry ridge, as too much wet injured the plant; we cultivated it with the hoe mostly, though the plow and hoe both were used in the larger patches. When it grew too rank, we topped it to check the growth, and send the growth of the plant into the lower bolls. We found new land the best, because more free from weeds, and easiest cultivated. The bolls began to open in July, and continued to open till frost, and even after frost many would open; and the cotton made good cloth, just as strong as any, but yellow. As to the quantity per acre, I never took particular notice, for the principal idea was to raise enough to do us, and when that end was fairly in prospect, we were not very particular about the cultivation nor the picking. It was not an object to raise much more than we could work up, because there was no market, except South, which was 'carrying coals to Newcastle.' We found the dry seasons the best; and we also found sandy land, or land with a good deal of vegetable matter in it, the best. The sand ridges and the river bottoms produced well.

It was not considered more difficult or uncertain to raise a crop of cotton, than a crop of wheat or corn. There were plenty of gins in the neighborhood, which ginned it for a fixed toll. The full capacity of the soil was never fairly tested with cotton, for it was a sort of side employment, and the object was not to see how much could be raised to the acre, but to raise what we wanted with the least attention.

In 1824 I moved to Morgan county, now Scott, about 16 miles west of Jacksonville. The year I moved up I turned over three-fourths of an acre of fresh prairie, on which I planted cotton seed in drills, as before stated, except that it was not ridged. This patch I did nothing to except plant it and pick the cotton. It was not cultivated at all, and therefore produced only a small crop. The product of this patch I remember was ninety pounds ginned cotton after the toll was taken out. We continued to cultivate it in Scott county, until the establishment of cotton factories brought their fabrics into competition with home-made goods, and the price became so much reduced that the cultivation was abandoned. With proper cultivation, cotton can be raised on most Illinois land, and can be made profitable. There is one woman in Scott county, a North Carolinian, who cultivates it every year to this day—a small patch for her own use—and always succeeds. The same kind of land that will produce good water-melons or sweet potatoes, will produce good cotton. The greatest drawback in raising cotton in this State is the shortness of the seasons. With a full season more cotton could be raised in Illinois than in the Southern States, on an equal area.

#### Culture of Sorghum and Imphee.

ED. VALLEY FARMER: As I still take a decided interest in your periodical, I propose to write occasionally for publication in your pages such articles as I think will interest and probably benefit some of your readers.

This article will be devoted to the progress which the cultivation of the sugar cane has made in this region, and the degree of success which has attended the efforts of my neighbors in manufacturing sirup from that plant. I believe that a majority of my neighbors (say, within five miles of this place,) planted experimental crops last year of from one-fourth to an acre, and eight mills were put into requisition within five miles of this place to crush the cane and express the juice. All of these, except two, were of the simplest construction, consisting of a single pair of wooden (sugar-tree) cylinders, cogged, and turned by horse-power by means of a sweep, or 12 feet lever, attached to a 3 feet stem left to one of the cylinders. The two mills, excepted above, consisted of three cylinders, so arranged that the cane passed through the mill twice without being handled again, thus subjecting it to a double pressure and adding about one-fourth to the juice obtained.—Several of these mills worked up crops for neighbors around, on halves, the cane being delivered at the mills stripped ready to be crushed, and was barely a paying business on these terms.

The proportional yield of sirup from a given

quantity of land, has varied widely, according to the quality of the land and the care and judgment exercised in the cultivation of the crop; the largest yield being about 80 gallons per acre, and the smallest from 40 to 50.

One of the mills is provided with a pair of sheet-iron evaporators, but at all the others the juice was evaporated in common iron wash kettles, set in temporary furnaces.

It is an exceedingly troublesome business to evaporate the juice, there is such an amount of feculent matter in the juice, that it boils over and wastes notwithstanding the closest attention. In order to make a fair-looking and pleasant-tasted sirup, fresh or green juice should never be added to boiling juice, for the boiling juice burns the green feculent matter contained in the cold, fresh juice, and retains it in the sirup, rendering it dark colored and producing a strong, disagreeable flavor. I believe that some of our manufacturers use cream of lime when they put the juice into the evaporator; but others, and amongst them myself, used no chemical, but depended on the skimmer to get clear of the feculent matter. All the manufacturers hereabouts, except myself, used beaten whites of eggs to clarify their juice, when pretty well concentrated: I used, instead, new milk pretty liberally applied while boiling furiously in the furnace, and strained afterwards, and succeeded in making the largest yield and the pleasantest sirup manufactured in the neighborhood.

My little patch of cane was 74 by 45 yards, consequently 300 yards less than three-quarters of an acre, and it produced 55 gallons, the cane being passed only once through a single mill; and as to time, the whole job was done up in just four days, by three hands, viz.—one to prepare and bring in the cane, one to work the mill, and one to evaporate.

Both kinds of cane—the Imphee or African, and Sorghum or Chinese—are cultivated here. There is a striking difference between the two, but the relative value of the two varieties has not yet been determined. The Sorghum grows two or more feet taller than the Imphee, and comes to maturity at least two weeks earlier, and is a great deal harder, and I believe affords a much richer juice—but of this I am not positively certain. The stalk of the Imphee is at least one-third larger in diameter, and from its shorter length is more conveniently handled.—I believe, too, that from the same volume of stalk the Imphee will afford the most juice, but whether it will produce any more sugar, is doubtful.

I see that a bill is before Congress, making an appropriation of \$3,000, for the purpose of importing sugar-cane seed from France. This, I think, is a useless expenditure, for if other parts of the country are as well supplied with seed as this, the country can be supplied with any amount, and it is genuine too, unless the two varieties have become mixed, and they do not seem much disposed that way—and if they did, I can see no great harm that would follow.

JOHN SMITH.

New Melle, Mo., Feb. 5, 1862.

### BRAZILLIAN POTATOES.

ED. VALLEY FARMER: The potatoes I sent you, and which you exhibited at a meeting of the St. Louis County Horticultural Society, yielded three times as much as any others I have raised this year.

I had about thirty-five bushels planted at the same time, in the same kind of ground, and cultivated in the same way, never hilling them if the season was dry, as the ground when left nearly level retained the moisture better, and thereby promoted the growth of the potatoes longer than when hilled to any extent.

I call them the Brazilian potato, as I procured a single one, through a friend, upwards of two years since, from the Emperor of Brazil, whose seal was upon it. I promised that friend that if it proved to be a good variety, to give him some of them to plant. I have forgotten his name, but he shall have the potatoes if he will call upon me for them.

I planted the potatoe, thus obtained, about the eighteenth of June, one eye in a place, 15 inches apart in the row, which, with the usual cultivation, yielded eighty pounds; all of which I planted last year, and raised a good crop.

From seven or eight bushels planted this year, I raised six or seven hundred bushels of the finest I ever saw. These last were planted in three different fields, at three different times, to-wit: The first planting on the 7th May, in fresh cleared land; the second planting on the 31st of May, in old ground, that has been in cultivation for about thirty years. Those raised from this planting were the best; and the third planting about the 24th day of June, in a field that has been in cultivation since the year 1815.

After having raised every variety of Irish potato I have ever seen, for about sixty years, and having made all the improvement I could during that time, I have arrived at the conclusion that this is the best variety that grows in this climate. At any rate, they yielded more and better than any other this year.

I believe that great improvement can be made on any variety of Irish potato, and with that end in view have been planting the seed from the ball for several years, but have been beaten this year by Jno. H. Sale, Esq., of this county, who obtained seven plants from the seed from the ball, planted and nursed in flower pots until the plants were sufficiently large, and then transplanted, one plant in a place, about the 15th of May, in the missing places in an early cabbage patch, and received only such

cultivation as is usually bestowed on cabbages. He raised as follows: The first plant yielded 29 potatoes, the largest one of which weighed 11 ounces; and 25 were sufficiently large for table use, and weighed 6 pounds 12 ounces, or one-ninth of a bushel, which is above the average crop in ordinary seasons from the tubers, with three plants to the hill. The second plant yielded 24 potatoes, which weighed 5 pounds 9 ounces. The third 29 potatoes, which weighed 5 pounds 6 ounces. The fourth 79 potatoes, weighing 4 pounds, 8 ounces. The fifth 88 potatoes, weighing 4 pounds 4 ounces. The sixth 48 potatoes, weighing 2 pounds 12 ounces; and the seventh 29 potatoes, weighing 2 pounds.—Aggregate number of potatoes, 322; aggregate weight of the same, 31 pounds 3 ounces, and comprising five varieties.

I examined these potatoes while growing, and weighed and counted them when dug, which took place after the vines were killed by the frost in the fall, at which time they were still in a rapid growing state.

JOHN SAPPINGTON.

St. Louis County, Dec. 1861.

### MANURE, AND HOW TO SAVE IT.

H. T. B., in *Rural New Yorker*, says:

There has been a great deal said about manure, but unless mankind behave themselves better, a great deal more has got to be said about it. Turn up your nose, if you will, it is a "staple" article, and is entitled to, and will receive, the growing confidence and respect of good men. It is directly connected with the growth and expansion of the human race. If manure runs out, man must run out, too: it is the fountain of our material prosperity. Why then is it heedlessly trodden under the feet of men and beasts? Why is there in America no systematic and scientific treatment of it?—Smaller interests are persistently and vociferously cared for. More doubtful matters are promoted by conventions, combinations and associations—are nursed by motherly legislatures, and honored by public confidence and approval. Manure, ignored by the bar, the pulpit, and the benevolent societies, is left "to waste its fragrance on the air," an outcast and an offense. Men, eminent for economy, who think Ben Franklin a greater man than St. Paul, because he was the author of the maxim, "Take care of the pence, and the pounds will take care of themselves"—men who cross-rake their stubbles for a few straws—even such men waste their manure. You could not persuade



them to let a bushel of corn go to loss, but they will waste the manure that would make fifty bushels of corn, and think nothing about it. If they lose a cow, they talk mournfully of her virtues for a whole year; but half the profit of keeping her they threw away without regret.

It is especially necessary that we should be reminded of our failings in this respect at the present season of the year. Now is the time to save food for the next year's crops. The two great sources of loss are leaching and burning. Half our stable and barn-yard manure is thoroughly washed before it goes to the field. Whatever else needs washing, manure does not—the dirtiest of it is clean enough for all practical purposes. What goes out in this washing, is precisely what ought to stay in. Prof. Norton of Yale College, says: "In all places where manure is protected from the sun, and from much washing by rain, its value is greatly increased. \* \* \* While the liquid manure is actually, in many cases, almost entirely lost, the solid part is often allowed to drain and bleach until nearly everything soluble has washed away. \* \* \* The liquid which runs from barn-yards and from manure heaps, is shown by analysis to consist of the most fertilizing substances; and it is calculated that where this is all allowed to wash away, as is the case in many instances, the manure is often reduced nearly one half in its value. I have seen yards where it was almost worthless, owing to long exposure. In Flanders, where everything of the kind is saved with the greatest care, the liquid manure of a single cow for a year is valued at \$10; here it is too often allowed to escape entirely."

Those who would remedy the evil here spoken of, will, so far as possible, keep their manure under sheds or in manure cellars; but yards must be used to some extent, in which case the following directions should be observed:

1. Let barn-yards be as small as the size of your flocks and herds will admit. It is common to see a desolate and irregular field, of a fourth of an acre or more, with sundry sharp corners and angles, muddy, and encumbered with rubbish, occupied at intervals by a dozen cattle or fifty sheep—mis-named a barn-yard.—If it includes a stream to which its surface inclines, and about which some poverty-stricken cattle congregate during the day, waiting in cold weather for an opening in the ice that they may get a "cooling beverage," the accessories are complete. It is impossible to litter it all, and the droppings are too far apart to make it

probable they will ever be gathered up. Rather have a small, well-fenced yard, with a water-trough in it, and keep it well littered with leaves, straw, or coarse grass, or weeds.

2. Let eaves-troughs be put up, so that no water shall fall from the buildings.

3. Clean the yards early in the spring; and plow in the manure before warm weather dries it up.

No farmer is at liberty to forget that horse manure and sheep manure are subject to rapid decomposition, in which almost their entire value is lost. Prof. Norton says: "Horse manure, particularly, should not be left exposed at all; it begins to heat and to lose nitrogen almost immediately, as may be perceived by the smell. It should be mixed with other manures, or covered by some absorbent earth as soon as possible." Speaking of the value of nitrogen which escapes so largely from urine and other manures, Mr. Norton says: "Manures containing nitrogen in large quantity are so exceedingly valuable, because this gas is required to form gluten, and bodies of that class, in the plant; this is particularly in the seed, and sometimes also in the fruit. Plants can easily obtain an abundance of carbon, oxygen and hydrogen from the air, the soil and manures. *Not so with nitrogen.* They cannot get it from the air—there is little of it in most soils; and hence manures which contain much of it produce such a marked effect."

Bear in mind, fellow-farmers, that this nitrogen, the manure of all manures, is just what you drive out of your dung when you suffer it to fire-fang or burn. Mix it liberally with muck or earth, and you may prevent this. If trodden hard without much litter in it, manure will not waste; at any rate, cover it liberally with plaster, and that will absorb the gases. A liberal application of soil or sods will doubly pay—first, in the preservation of the volatile portion of the manures; and second, in what those substances contain for the renovation of the soil. Science unites with common sense in asserting that we must in some way restore to the soil the elements taken from it by the crops, or we shall in the end arrive at utter barrenness. Now, farmers, you are very clever fellows—very, very, very; won't you draw a few loads of muck or earth from the road-side to your yards—cover so it won't freeze, and mix it with your sheep and horse manure during the winter?

An egg to-day is better than a hen to-morrow.  
Keep the shop and thy shop will keep thee.  
Nothing dries sooner than a tear.



## OHIO SORGHUM CONVENTION.

This was held at Columbus, January 7th. Forty-two specimens of sirups were entered for the premiums, and as many more brought in that were not entered, and seventeen samples of sugar.

A sample of rum was exhibited by Mr. Sherman from Euclid, Cayahoga Co., made from the skimmings of the juice, which is considered equal to any other rum produced.

Mr. Myers, of Springfield, presented a specimen of wine made from the Sorghum cane, that was quite palatable, and resembles that made from grapes, but did not say how it was manufactured, as he is publishing a work on the subject, which will be for sale in a short time.

The premium of one of Jacobs' Patent Evaporators for best sirup was awarded to Mr. Jacobs, of Franklin Co. Mr. J. thought the planting should be done in accordance with the season and condition of the soil. As a common thing, the seed should be soaked; but if soaked or scalded, and planted in dry ground, it would fail. The ground should be mellow. One half gallon of seed to the acre was sufficient. If the seed were good, it would bear thinning out, but it should not be suckered. Thought the cane was in the season of maturity for cutting up when the seed was partly turned. If the seed became ripe, the saccharine matter formed wood and fibre; if cut too green, the sirup would be of a lighter color, but less in quantity. The cane should be shocked in the field with the butts on the ground, and protected with corn fodder. It improves in richness by standing some time.

The juice ferments very rapidly after being expressed from the cane, or after the cane is frosted. Thinks the Bi-Sulphite of Lime should be used, as it arrests fermentation. He uses one pint to one hundred gallons. The juice should be evaporated as rapidly as possible, as the longer it is exposed to a slow heat, the darker will be the color of the sirup.

The cane should be planted three and a half feet apart, and allow from eight to ten stalks in a hill. Suckers are objectionable, but if planted as above, they will not grow to disadvantage. He cuts the seed head off while in blossom, and then tops the cane again when he goes to work it up, at about the same place he would under other circumstances.

Mr. Hopkins, of Richland, had tried the culture of the cane for two years, and had made 1800 gallons of sirup the past season. Clay soil is the best. Muck will not answer. Cane grown on muck made the most juice but less sirup. Had made 72 gallons molasses from one acre of muck cane, and 154 from cane grown on clay. He had used a one-horse mill, but it was too small for his operations. Had made sugar whenever he tried.

Judge Gage, Chairman of Committee on Permanent Organization, reported the following preamble and resolutions which were adopted:

Whereas, In the opinion of this Convention, the cultivation and manufacture of the several varieties of the "*holcus saccharatus*," or sugar cane, grown in the Northern States of the Union, are in and of themselves scarcely second

in importance to any of the field crops now cultivated; and, whereas, by the fostering care of the State Legislature through the State Board of Agriculture, other branches of Agriculture have been more fully developed thereby, than could have resulted from unaided individual enterprise: therefore,

*Resolved*, That we recommend to the State Board the importance of making the cultivation and manufacture of the cane, Imphee and Sorgho, a prominent and distinct feature in their deliberations, by offering such inducements for the best essays thereon as shall call forth the object herein contemplated.

*Resolved*, That in the opinion of this Convention it is desirable to so amend the legislation of this State, that hereafter the assessors be required to report the number of acres cultivated in these canes, and the number of pounds of sugar and of gallons of sirup made.

The first premium for Sorghum sugar was awarded to sample made by Jas. Cook, of Mansfield and exhibited by Mr. Day.

Mr. Day explained that in order to obtain crystallized sugar from the Sorgho cane, shallow evaporation was necessary; that the foreign matter be entirely removed by skimming, and being deposited on the bottom of the pan, that the sirup be boiled to a density of 30 degrees Beaume, and the temperature not be allowed to fall below from 80 to 90 degrees Fahrenheit, until crystallized. He says if care be used, sugar can be produced at all times from good cane.

Mr. Day stated that the fine sample of sugar exhibited by himself, made by Mr. James Cook, of Mansfield, crystallized in forty-eight hours after leaving the evaporator, and was drained off the molasses in one hour's time, by inclosing in a strong linen bag and subjecting it to a pressure under a cheese or similar press.

Mr. Hopkins wished to know what sized mill was most desirable for working a crop of fifty acres.

Mr. Hodges thought a four-horse mill, driving roller not less than twenty inches in diameter and twenty inches long, that the shaft should be large in diameter, upwards of three or three and a half inches, as they will sooner or later break.

Mr. Long thought Gill's No. 7 mill was large enough. He used it with two horses. Thought farmers should buy good mills at first. He said experimenters had most always bought cheap mills at first, and then had to sell them at a great sacrifice in order to buy larger and better ones.

Mr. Newcomb wished to know what was the most durable article for an evaporator. He thought common iron better than galvanized iron; that zinc coating wore off in one season, and was poisonous.

Mr. Hodges thought copper was the best, but it was too expensive. He thought common iron was next best, and the thicker the better.

Mr. Jacobs had tried galvanized iron, thinking he could make a lighter article of sirup, but found that the common iron was most durable, and made just as light an article of sirup.

Mr. Newcomb said he used Cook's Evapo-

rator for defecating his juice, and finished his sirup in a common pan. He used milk of lime (or common whitewash) in the raw juice, and would not do without it; he thought it removed the raw and sharp twang. Said he had used soda, but did not like it, it made a light article of sirup but it tasted unpleasant.

Dr. Warder was called upon to explain the difference in the properties of lime and soda. He said the lime was deposited on the bottom of the pan, while the soda would be incorporated through the sirup.

A committee was appointed to obtain statistics and information similar to that given at the Convention, and publish it in pamphlet form for circulation among those interested in the growth of cane.

Samples of sirup were exhibited from the refinery of Mr. Belcher, of Chicago, said to have been refined from the poorest possible specimens of Sorghum molasses. They were quite dark in color, but were exceedingly pleasant to the taste. The strong, stringent taste so common to Sorghum molasses being entirely removed.

[Written for the Valley Farmer.]

### TIMBER.

People are careless about their timber. They are ignorant also—exercising but little judgment in the use of it. It is one of the many benefits running to waste, which it is hard to replace.

There is something beautiful in wood—in all its associations. And this should not be the least important part, although it is generally so considered. If there is any truth in what the sages say, then

"Beauty is its own excuse for being."

Go into the woods. We all love to be there at times. There is the fragrance, which is peculiar; and the flowers, all the more tender for being born, like stars, in the darkness—the darkness of trees whose date is anterior to the country's discovery. Here also are birds, as interesting as the flowers; and brooks, "full to their brim," as the Creator first poured them forth.

All this is the poetical aspect. But there is a deeper poetry—the poetry of utility. For all of life has its poetry if we could but see it. Cut down one of the veterans of the forest, where it has stood till it seemed it would stand forever—cut it down, and you will cut down a historian that has seen more than you and I imagine. He was the hero of the place; the winds could not bring him down; and the young trees gloried in such protection. He overlooked them all, and marked the approach of every enemy. But the keen, glittering edge approached him. It talks to the other trees; and what is its language? The trees echo their dismay,

and would weep if they could. But the tree himself replies soon, with a thunder that shakes the roots and branches of the surrounding trees, that is felt to their utmost fibre. And there is an open space—the first for centuries.

The chopper seats himself upon the broad stump to rest from his herculean task. And now you see him bend his head—he is counting the circles, each one marking a year. It takes him long to count such an accumulation. He goes away back, back, past the discovery of the country, into old history, till he becomes sober with the reality—and at last touches the centre, where the sapling stood, now surrounded with such thickness of wood. He has his finger on the very shrub itself when it was but a year old, and might have been bitten off by the moose.—It was a crooked sapling, as he ascertains when he follows it out in the tree. But the growth of the tree has straightened it, till it became an upright tower of strength. The years did this: the beautiful summers. Again the chopper is busy—not chopping. He is brushing the chips away from off the stump, to see more clearly the "rings," as he calls the annual circles; and he is now studying an interesting history. The broad layers tell him of long, warm summers—summers that you read of in history: he is surprised to find them agree with the historical account. Then he finds some rims so small he can scarcely detect them. Those were the short, cold, summers. Now and then a "bruise" or interruption takes place. What is its history? He would give much to know—the poor wood-chopper, who has but little to give. And thus, as he follows the leaves of this history, he becomes more and more sober, till he rises with a sigh, to the final demolition of the tree. For the vandalism is not confined to the cutting down, but to the sacrifice of the tree. We so little value timber when in the tree; or are ignorant of its various uses. There is full variety to meet all purposes. But how often do we have the right timber at hand when we want to use it? We buy our ax-helves, our whip-stocks; have the mechanic put in a new thill or pole, perhaps as worthless as the one that came near costing us a neck, and did break a limb, which might have been avoided by better timber. The right timber in the right place—that's the true theory.

There are times in winter when the farmer would with pleasure work among fine timber—haul it to the mill, and provide himself with what is needed from time to time, and what will at all times find a market at his door.—

This will help a good deal towards the prevention of accidents; will materially lessen expense. But, as we permit the drunkard to gradually commit suicide right in our midst, and even sanction it, (indirectly, and sometimes directly,) so we let these omissions pass by, till we find ourselves in the ditch of disaster. And do we apply the remedy then? I ask each farmer the question. No. We permit our timber to rot; or cut it in the wrong time; or dispose of it in a disadvantageous way. If a plow-beam is restored, is it likely the plow-wright will put a better one in its place? Yes, if you see to it that he does; or supply your own timber. We depend too much upon others. We are often lazy. Some people will not cut down their woods: they will leave them for their children to spoil, or strangers when the farm goes into other hands. Everything at the right time—that is the doctrine. And a little timber of each kind, always ready and seasoned, is so desirable, it is a wonder every farmer does not have it. I know of some that do. And it is a pleasure as well as curiosity to visit such a cabinet. To see the tough, well-seasoned oak and hickory, and the beautiful white ash; the pine, that is almost transparent. We all know the treasure there is in clear, perfect pine. We know such farmers, and they are among our most orderly and thrifty. You will see neatness around their premises, and comfort in their enjoyment—which, after all, is the true object of living.

Our woods are pretty well cut down. People begin to feel this, not only in the greater severity of the winters, by letting the winds in, but in the expense of fuel. Good trees are more valued, though not yet sufficiently. The land they occupy is too much thought of as so much waste land, when it is growing them their best percentage, often. Each wood should be a treasure. But a man must have an eye of discernment towards it. It is a beautiful thing to have the forest grow money for you; but it is equally well to have some of this treasure waiting for use in your workshop—for it grows for this very purpose. Use it, then. See to it that the forest is made a more effectual means for your accommodation, profit, and, most of all, security. Do not, through your carelessness, endanger a limb or a neck. Has not every neighborhood just such instances?

First of all, then, save your woods: it will add (though you don't observe it) so much to the earth's moisture, and the country's warmth.

Secondly—What you use, do it discrimin-

ately. Let no trees rot for the want of cutting down; let them not decay by age. Use them when they are of the most advantage. And be careful how you put your ax into a sapling or young tree. Let it grow, unless absolutely needed. In this age of wants, timber is worth something; and will be worth more and more. Of this—if all other things fail—there can be no mistake. Wood will be wood by-and-by.

Thirdly—Supply your work-cabinet as well as your wood-shed, with well seasoned timber.

Shall I put in a Fourthly expressly for the wood-shed? Will farmers ever learn to season their wood before they burn it? Or will they be determined to go counter their lifetime—counter against their own interest. They love to be smoked out and frozen. It is this dingy, dozy wood that makes cross housekeepers—and will any one blame them? This writer does not—he has seen enough to know. Life, in such circumstances, is one great "washing day," if any one knows what that means. We prefer the cheerfulness which cometh with dry wood.

F. G.

[Reported for the Valley Farmer.]

### Meramec Horticultural Society.

ALLENTON, 6th February, 1862.

The thirty-eighth monthly meeting of this Society was held according to motion of adjournment. President Morse in the chair. The minutes of the former meeting were read and approved.

The Essay upon "The Difficulties Encountered by the Amateur in Pruning of Fruit Trees, and How to Overcome Them," was read, and upon motion was requested to be published along with the minutes of the meeting.

The Committee upon the "Fruits Adapted to the Family Fruit Garden," desired to be discharged in consequence of having already gone through the lists of Fruit as far as they would be justified from actual experience in this vicinity; that many of the other fruits were on trial, and that some, as the cherry and plum, had as yet barely justified the recommendation of those fruits for trial. Still, they were being tried, and those who wanted to go into this sphere of experiment, would find considerable aid by consulting the reports of the State Horticultural Society. All the members of the Committee present coinciding, the Committee was accordingly discharged.

The Executive Committee reported as a subject for discussion at the next meeting, "Lunar Influence, as it Affects the Operations of the Cultivator of the Soil."

The Fruit Committee presented the following report:

The Fruit Committee find on the table but a small show of fruit.

Mr. P. M. Brown shows good large Jenetons in fine condition; Wine Sap small, and very inferior in quality. Wm. Harris—Pryor's Red, Ortley, Janet, and Wine Sap, all very good. Judge Tippet—Some very fine looking Pennocks, but badly specked inside; Janets, small, highly colored, with fine flavor, well kept. Philip Tippet sends us some extra fine specimens of Jenetons, unusually yellow, very good. Mr. Gruby—Spitzenburg, Newtown Pippin, with two other varieties not known. Mr. Detweiler again favors us with an extraordinary specimen of the Ortley



in fine condition; also, Hubbardston's Nonesuch badly kept.

A. W. McPHERSON, Chairman.

#### SORGHUM CULTURE.

Being the subject in order for discussion, Mr. P. M. Brown was called upon for his views. He said he had not raised it, himself, but had very frequently, and quite recently, conversed with those who had cultivated it for several years. Several of our neighbors have raised it and with them I have eaten its product frequently. The sirup is, this season, selling at fifty cents a gallon; and the estimate of the cost of raising per gallon, and the number of gallons to the acre, varies much with different individuals. One person stated that a single stalk, and that a very small one, on being pressed in a home-made mill, gave a tea-cupful of juice; and the same party does not think this half the average yield.

Dr. McPherson had raised about an acre some four or five years ago. Planted it in the same field with corn, the same width as the corn, and in drills the other way, dropping the grains like ordinary stepped corn, about 2½ feet in the row, and I have not since seen a better crop. It is about the same as broom corn to cultivate, and much resembles it in appearance and mode of growth. It comes up a small and feeble plant at first, but grows very strong and rapidly afterwards. I made a rude mill that did not work well; made some sirup to see if it would make a paying crop. Sugar and molasses were not so high priced, and money was not so hard to obtain as now, and so for want of the proper implements for its manufacture, I did not try it again. I think a good plan would be to plant it around the sides of the field, particularly on portions near the woods where squirrels are troublesome; and it would be invaluable for cutting up for fattening hogs or feeding to milch cows when the grass is scarce. Stock of all kinds eat it eagerly; they eat it up clean, making no waste, and its fattening principles must be great. The children peel the stalk, and eat it as eagerly as candy. That it can be made a paying crop to the farmer, there is no question. Upon good, strong land, tended about the same as corn, with a good mill and evaporator in the neighborhood, there is no doubt it would be a very great benefit. As an exhauster of the soil, I think it may be somewhat more so than corn, but have not tested it sufficiently.

Secretary has had it growing, but did not get it crushed for want of a mill; but had a quantity of the stalks lying in the corn-crib for three to four years, and the cows and horses eat up the old, dry stalks in preference to new corn fodder. Have known the sirup made for three to four years by one family in particular. Know the leaves are used for fodder, and the seed browned for coffee, but don't like its mealy flavor. Hulled, by scalding, and drying in the sun, it is as good as rice; and ground and bolted, it is superior to buckwheat. It is eagerly used by poultry and stock of all kinds, and is certainly more fattening than any other grain. Have eaten preserves that were kept over two years in the sirup, which was granulated on the fruit like the sugar on fine damsons or grapes. Have here a sample of the granulated sugar, made two years since with Cook's Evaporator for the Illinois State Fair. I have received a small parcel of Imphee seed from a grower in Tennessee, who, after several years' experience, finds the juice of the Imphee granulate much more easily than that of the Sorghum.

Dr. McPherson made some leaf fodder, and the stock did not seem to like it at all, while they ate the stalk greedily.

Mr. L. D. Votaw has known of the cultivation of the sugar millet for about eight years, at least forty families on Big River have cultivated it; and have conversed with some of them lately upon the subject; they regard the leaves as superior to corn leaves as a feed for stock; they have made from four to five barrels each year only for home consumption; they prefer hilling to drilling, for the increased convenience

of cutting the crop; with a corn-knife they cut all the stalks at once; and they think with their imperfect, home-made mills and small kettles, that they make two to four barrels to the acre.

Mr. Pyatt, a neighbor, got a new variety, without any specific name, which he finds does much better than the common Chinese variety; the sirup is darker and much richer than the common variety, and the seed, ground and bolted, is far superior to buckwheat. All my neighbors agree that half an acre is sufficient for sirup to a family. It is essential to have no broom corn near it, as it has a tendency to mix, and some sirup has the full taste of broom corn. I have obtained the promise of all the spare seed from Mr. Pyatt, and shall plant three to four acres, and will give the surplus of the seed to any who will try it.

Mr. Schultz has made about twenty mills, and charges for two-roller mills \$3, and for three rollers, \$12, made of wood. I have ordered for my own use, three mills, and ten mills for such as may want them.

The best way to crush the stalk, is to take the single stalk and pass it through the mill, and then twist four or five stalks together, and pass them through the mill, and much more juice is obtained at the second pressing than at the first. It is generally held that three gallons of juice will make a gallon of sirup, but I find that the sirup has a tendency to ferment, and that four gallons would make a better article, not so liable to ferment.

In the cutting of the stalks, it is held of great importance to cut, strip, and press the stalks without a moment's unnecessary delay, and boil down the juice immediately, as the stalks and juice ferment in the shortest time imaginable. And by all means have pure seed.

The President—I think that Mr. Votaw has mentioned a most important item (good seed) it is so apt to mix with broom corn or any other of that family. I find, with pleasure, that the Patent Office has decided to import pure seed from France. Next to good seed, it is important to plant early—and fall plowing would aid early planting much; this early planting would help the early development of the plant, and I believe that its saccharine principle is better developed during the intense heat of summer than at a later period.—Steeping the seed in warm water will favor early germination. I don't think it matters much as to whether it is planted in hills or drills. My own feeling is for drills, 4 feet apart, and 10 to 12 inches apart in the rows. The leaves make good fodder, and when nearly ripe should be stripped by taking a hickory rod, splitting the end, putting in a wedge to keep the slit open, and with one stroke strip off all the leaves, this should be done about ten days before cutting.—The time for cutting is indicated by the yellow stalk and the change of color of the seeds, which become from dark brown to black, and then cut off about three feet of the stalk, as the middle portion contains much more of the saccharine matter. It is then to be stripped of its outer skin, taken upon the wagon to the mill, and crushed and boiled without delay. My own opinion would be to get cast iron mills, with three rollers, as the best made wooden mills cannot get out all the juice; twisting the stalks seems good and get it from the mill to the boiler as fast as you can. It is important to clarify it with lime, egg, or some such article. Some pass it through bone black, which removes all the scum and taste complained of by some. I think that with care, and the proper implements, you may make a good sugar. I think it difficult to boil down properly in common kettles. I don't think it policy to use improper mills and small kettles. Let the people club to get good apparatus, and good results will be obtained. It has been tried in Illinois to give half the crop for crushing and evaporating with the proper appliances, but practice would determine the proper proportion.

Mr. Votaw—I think it will be found that stripping ten days before crushing, will make it to hard to crush. I think that the stripping, cutting, crushing



and boiling should be done as rapidly as possible. I think with the President, that early planting and cutting is best. I think that from the 6th to the 10th of May is the best time. As to boiler, I have two mills at \$10, and four kettles will do it all.

Secretary—I think that Mr. Votaw runs up as large a bill for machinery as the most improved will come to—

2 mills at \$10,	-	\$20
4 kettles at \$4,	-	16

\$36

Without the saving of time (in fact of whole crop), of fuel and attendance.

Mill,	\$95
Evaporator,	45

\$140

Which would do a whole neighborhood well and in the shortest time. The figures are all over the price, but are from memory.

Wm. Harris—There is much difference in making maple sugar, and I think that in regard to the proportions of juice and sirup, and all the other questions, much will depend on the manipulation.

The President announced the next meeting to be held at Eureka, on the first Thursday of March, at 10 A. M. Meeting adjourned. Wm. Muir, Sec.

### BLACK PEPPER.

As many of our readers do not know how the

Black Pepper is produced, which is to be found on every table, we here give a cut of a part of the stem, and bunches of the fruit.



The plant is described as follows: The pepper plant, or pepper vine as it is sometimes called, is a creeping or climbing plant, with a dark col-

ored stem which requires support; and it is usual to plant a thorny tree by the side of this plant, to which it may cling. In Malabar, the chief pepper country of India, the Jacca tree is made thus to yield its support, because the same soil is well adapted to the growth of both plants.

The stem of the pepper plant entwines round its support to a considerable height, the flexible branches then droop downwards, bearing at their extremities, as well as at other parts, spikes of green flowers, which are followed by the pungent berries; these hang in large bunches resembling in shape those of grapes, but the fruit grows on little stalks like currants. Each berry contains a single seed, which is of a globular form and brownish color, but changes to nearly a black when dried. This is the pepper of commerce. The leaves somewhat resemble those of the ivy, but they are larger and of rather a lighter color. They partake strongly of the peculiar smell and pungent taste of the berry.

The plant is propagated by shoots, which do not produce fruit the first three years; the fourth year they come into bearing, and yield an increase of produce annually until the eighth year of their growth. They then gradually decline, and rarely bear for more than two or three years longer.

When in full vigor, the pepper plant is very prolific; each bunch usually contains from twenty to thirty berries, and sometimes as much as six or seven pounds of pepper are obtained from one tree.

The time of the pepper harvest on the western coast of Sumatra, is usually about September and October, and sometimes another small crop is gathered in March and April. The pepper plantations on this island, are described as being most carefully cultivated, not a weed is to be seen, every species of litter is removed, and if the season be dry, the plants are watered with unremitting assiduity.

The pepper is distinguished in Sumatra into three sorts: The *molucca*, which is the best; the second, caytongee; and the worst sort, negaree, which last is the most abundant. This is a small pepper usually full of dust. It is much lighter than the others, and, therefore, unless the buyer be wise enough to purchase his pepper by weight instead of by measure, he will assuredly be imposed upon, and have this substituted for the heavy molucca berry.

### MAKE AN ASPARAGUS BED.

Many farmers have never planted a bed of Asparagus. They do not know what a luxury it supplies to the family. If they did, they would certainly have a bed at whatever cost.—Farmers like good things just as well as other people. They only want to appreciate a thing, and know how to plant it, and take care of it, to induce them to raise it. They are better off than city people. They can raise every vegetable luxury, and the only cost is the labor. They can have everything fresh, while city folks have to buy it at huckster's stalls, second-handed.—Farmers have sweet, fresh butter and cream with which to season their vegetable luxuries, which all city people have not. They have an abundance of land to produce whatever vegetable delicacy the appetite may demand—which is not the case with people living in hired tenements on lots 20 feet in width by 100 in length.

We urge all of our readers, who have not an asparagus bed, to put one out this spring. They will never regret it. This vegetable is the very first one to be enjoyed in the spring, and coming in after so long a season of fasting, it is especially desirable. It is not necessary to go to great expense to prepare a bed. A good, rich garden soil will produce good asparagus. In our January number, Mr. Carew Sanders gave reliable directions for preparing the beds and setting out the plants. Most nurserymen keep a good supply of plants.



### BIG-HEAD IN HORSES.

ED. VALLEY FARMER: There is in your January number of the *Valley Farmer*, an elaborate and scientific article on the Big-head. I have had many cases of that disease, and wish to give your readers the benefit of my experience.

The first case of big-head I ever had, was with a good race-horse and stallion, bred and sold to me by the late Col. Johnson, of Virginia. This horse, called Cadet, was taken with a gradual stiffness, increasing until he could not step over a door-sill one foot high. I cured him as sound and well as he ever was. Before giving the remedy, it will be well for the benefit of the novice to describe the first appearance of the disease, and how it may be detected early. By feeling, with the thumbs, the large muscles leading from the side face between the eye and forehead and extending to the nostrils—when a horse has the big-head, these muscles become perfectly rigid, and will not move by the pressure of the thumbs. As the disease progresses, the horse increases in stiffness, until every joint seems growing together, and his food falls from his mouth as he attempts to masticate it.

Now for the cure, "let him be ever so bad." Procure 1 oz. of Oil of Cedar, and 1 oz. of Venice Turpentine, and anoint the above-described muscles with the Oil of Cedar and Venice Turpentine every third or fourth day, for six times, and bathe it in with a red-hot iron, held about four inches from the said muscles. Use each article alternately. At the expiration of eight days, take a piece of Poke root, the size of a goose-egg, and boil it in one gallon of water down to two quarts, and drench the horse with a little less than a pint of the Poke tea with a pint of water, every third or fourth day. If the weather is cold, cover the horse, and give him warm mash; or if the weather is warm and dry, turn him on pasture: should he be so stiff that he cannot get his head to the ground, cut his grass and raise his water to his head, and in thirty days he will be well.

According to my observation, race-horses are

more subject to big-head than any equal number of other horses. What causes the disease, no man can tell: it is as inexplicable as the milk-sickness in cattle. My horse, Cadet, had not ran a race for two years; yet I have known horses turned out of training stables with big-head. It is not contagious, like glanders—which is incurable. S.

*Florissant, Mo.*

### Take Good Care of the Stock.

Many think that when the severest weather of winter is over, they can begin to lessen the amount of feed to their stock; and, acting on their thoughts, they feed but little to them after the first of March. But this is very bad policy—very unprofitable business. Stock, at this season, need to be fed as liberally as in mid-winter. Though the sun begins to shine warmly upon the earth, there is but little vegetation, and less nutriment in it, before the middle of April or first of May. By withholding a liberal supply of feed, stock become very much reduced, and it will take them half of the summer to recuperate the lost flesh, which a little more feed, daily, would have saved them. Had the necessary food been supplied them, so that they could have held their own, they would have been increasing in flesh and value during this time, instead of making up what they lost by bad management on the part of their owners.

Now is the time for farmers to consider whether it is profitable to withhold feed from their stock. Is it not desirable to keep stock always improving, always increasing in value, instead of standing still or falling away? There can be no doubt it is. No one should keep more stock than he can keep well. A bountiful supply of food should always be laid in for all the stock of the farm, and if the farmer is not well satisfied he has an abundance, he will find it to his interest to dispose of all stock in the fall, that he cannot thus provide for.

**EFFECT OF COLD ON FATTENING ANIMALS.**—Dr. Playfair, in the *Journal of the Royal Agricultural Society*, in speaking of the necessity of warmth to fatten an animal readily, says that to keep up the animal heat, the oxygen of the air unites with that portion of blood which goes to form fat and tissues, and converts it into carbonic acid, water, and ammonia. Where all the vitality of the animal is used to manufacture heat, there is no power left to increase the fat. If we would fatten animals in winter, we must give them a summer temperature, by warming the shed and stable they occupy. The air that they breathe should be as pure as possible.

### TRAINING STEERS.

A correspondent of the *American Stock Journal* gives his experience in the training of steers.—He says they should be:

1. Accustomed to your presence.
2. Trained to be yoked—to travel in the yoke, and turn right and left at command.
3. Trained to work.

The first should be accomplished long before "breaking," as it is termed; if, however, it is not, it may be very easily done by handling the animal—if it must be by force, handle, always being deliberate and careful in action, and never be thrown off your guard so much as to strike or kick. The creature will soon learn he has nothing to fear—now let him know he has something to gain, by giving him a nubb of corn, or scratching his neck, back, etc. Whenever you undertake to handle an animal, accomplish what you undertake; and if you have any doubts as to the result, do not begin until you have force enough to be sure of success. If you do begin, and fail at first, persevere until you finally conquer—that's the word—conquer.

Any animal is a long time forgetting a triumph. I would rather teach ten wild steers to handle that have never been tampered with, than one that has once come off "best." The most skilful man that we ever saw at handling cattle, did it with the least expense of feeling to them, and yet when they refused to perform, he used the most imperative force to compel obedience. An animal came from his hands tamer and more gentle than from one who resolves not to force. Use then force enough—do what you attempt, but be always mild and gentle—show no temper.

*Training to the Yoke.*—This is the easiest and best done in the barn-yard. Drive them quietly around for a considerable time—mind, you drive them, if not they scamper where they like, without perceiving that you are master. After half a day of such driving, many steers will submit to be yoked by the driver alone, and wild ones will soon be so wearied as to be readily yoked. In this regard you have to judge whether best to yoke by calling in help, or keeping them going until you can yoke them by yourself. When you have them yoked be gentle with them—let them know you are master—keep them going until weary, but very little alter.

It is easy to learn steers to turn right and left, when you have them in the yard under your control. Touch the near one when you wish them to go to the right—the off one when to the left; or if you wish them to turn about, start one ahead quick by a touch, while you motion the other back at the same time.

*Training Steers to Work.*—This is by far the most critical part of breaking steers, and should be accomplished by gradual approaches, being careful not to worry nor weary them. Suit their tasks to their strength and endurance, and have patience now, that when they are fully grown they may not be prematurely old cattle. How many pairs of so-called glow cattle, are really so? They are old in appearance, and slow, because when young, their spirit was de-

stroyed by overwork. Cattle are more unfitted than any other animal to severe labor before attaining their full growth and constitutional development.

In breaking steers, bear in mind that you must subdue their will, but maintain unimpaired their natural animal spirits.

One year ago we trained two pairs of steers; one pair was wild, and had to be caught with the lasso. This pair we had gentle and tractable in one week, and yet one of them possessed an almost unconquerable will. In getting him home, we yoked him with his mate and could not drive them. We then hitched a strong pair of oxen ahead and drew him—he part of the time sliding on the ground, and part of the time pulling back all he was able, but firm; and in one hour he was subdued, and we had no further trouble with him.

In training steers, use all the force necessary to bring them under your control; then gentle them by being mild and gentle yourself. No animal thinks less of you for conquering, if you do not abuse your superiority.

### An Interesting Sheep Experiment.

In Scotland as well as England it is well known there is great attention paid to sheep breeding, both for the wool and flesh; indeed there is no country in the world where success has been so great and gratifying. Our best breeds of sheep are obtained there; but we have found that the mixed breeds do better with us in the long run than the pure imported stock. The following experiment, undertaken by the Parlington Tenants' Club of Scotland, as we find it reported in the *Scottish Farmer*, to prove the fattening qualities of certain breeds, will be read with interest. (A "stone" is 14 pounds.)

There were eight different kinds of sheep, and each lot were turned into a two-acre plot of a 16 acre field, each plot being of equal grazing value. The lot consisted of—1st. Ten crosses from the Teeswater with the Leicester; 2d. 12 crosses from the Cheviot with the Leicester; 3d. 10 Lincolns; 4th. 10 South-Downs; 5th. 10 Shropshire Downs; 6th. 12 Leicesters; 7th. 10 Cotswolds; and 8th. 7 odd sheep, one from each of the above classes—all hoggs. The fairness of the above trial would thus appear to be somewhat vitiated by the difference in the numbers. The cross Cheviots and the pure Leicesters would have a sixth less grass than five of the other lots, and five-twelfths less than the odd sheep.

The lots were all turned into grass on the 23d May. A fortnight after this they weighed. The weight of the Teeswater crosses were 106 stone 3 lbs.; of the Cheviot crosses, 124 stone 13 lbs.; of the Lincolns, 125 stone 9 lbs.; of the South Downs, 95 stone 10 lbs.; Shropshire Downs, 101 stone 6 lbs.; odd sheep, 69 stone 7 lbs.; Leicesters, 116 stone 3 lbs.; and Cotswolds, 90 stone 9 lbs. Between this date and the fourth of October the sheep were weighed four times.—After four months' grazing, supplemented by 3 lbs. of linseed cake per day, from 17th June to 1st August, and thenceforward with 6 lbs. per



day of the same materials. It was found that the Teeswater crosses had added 18 stone 1 lb., or nearly one-sixth to their original weight; that the Cheviot crosses had added 18 stone 9 lbs., or little more than one-seventh; the Lincolns, 6 stone 7 lbs.; or about one-twentieth; the South Downs, 13 stone 2 lbs., or less than one-seventh; the Shropshire Downs, 20 stone 8 lbs., or about one-fifth; the odd sheep, 11 stone 10 lbs., or about one-sixth; the Leicesters, 24 stone 7 lbs., or nearly one-fourth; and the Cotswolds, 19 stone 6 lbs., or more than one-fifth of their original weight. The advantage is thus in favor of the pure Leicesters and Cotswolds. The Cheviot crosses, however, do not seem to have had enough of grass, having decreased instead of gaining in weight during the last month.

One sheep of each kind was tried on grass without any artificial food. Under these conditions, the Cheviot and Leicester cross greatly surpassed all the rest, making three stones in four months.

The grass eaten is, of course, an item, when profit comes to be calculated, and the Cheviot crosses appear to be the greatest consumers.—Next to them the Lincolns and Shropshire Downs bared their pastures most, and after them the pure Leicesters and Cotswolds. The fact that the sheep were not all in the same condition when procured, must also affect the experiment to some extent, but it is to be commended as a step in the right direction.

#### BOILING FEED FOR HOGS.

The following is from a correspondent of the *Michigan Farmer*:

I have read a great deal in your paper about feeding hogs, and have fed a good many in various ways; but the most successful way I have found is to boil or steam all their food. I have made a practice for several years of boiling pumpkins, small potatoes, turnips, and all other odds and ends about the garden and house, such as squashes, cucumbers, radishes, etc., putting in some peas, corn, or corn meal, barley, or any other kind of grain, to give it a body. My hogs never failed to do well on this kind of feed, and paid well for the trouble.—Then came the corn, and off went the profit.

Last fall, after feeding four hogs three weeks, at the rate of three bushels per day, and seeing no change I hung on my caldron again and filled it with corn in the year (as it was not dry enough to shell), and put one hog and five pigs more into the pen, and fed the same amount of boiled corn to the lot that I had fed of raw corn to the four. In three weeks my hogs could scarcely rise to eat their feed, and I never had nicer pork.

Prindle's Patent Agricultural Caldron and Steamer is the nicest arrangement I have yet seen for boiling or steaming food for hogs or cattle. In my opinion it cannot be beat for safety, convenience and cheapness combined.

**VARNISHING CHEESE.**—A writer in the *Dairy Farmer* states, that it is the practice of some

dairymen to coat each cheese thinly with a varnish made from shellac dissolved in alcohol, when about to be shipped for market. It is said to improve the appearance of the cheese and to keep it from losing weight and gathering mold. We cannot say as to the value of this recommendation.

**ANIMALS BECOMING PARENTS TOO EARLY.**—Victor Gilbert never allowed ewes to have lambs until they passed their third year; and the bucks were not used until they had arrived at full maturity. He, as well as many other sagacious stock raisers that we might name, are probably conversant with the fact that during the period of growth and development up to maturity, the re-productive organs are dormant, while at the same time the nutritive function is wholly engaged in elaborating chyle and blood for the development of bone, muscle and nerve, and that calling into requisition the re-productive or generative organs, before the animal has attained full growth, must necessarily divert the elements of matter intended for nutrition from their legitimate channel and direct them to the re-productive organs. A too early use of the purely animal function induces weakness and stunted growth.—[*Amer. Vet. Surgeon.*]

#### The Points of a Short-Horn Cow.

The following very good summary of the "points" of a Short Horn Cow, was contributed by Mr. Carr, of Stackhouse, for the *Highland Agricultural Society's Journal*, Scotland:

The following features constitute, I trow, The beau-ideal of a Short Horn Cow:  
Frame massive, round, deep-barrelled, and straight-backed;  
Hind quarters level, lengthy, and well-packed;  
Thighs wide, fleshed inwards, plumb almost to hock;  
Twist deep, conjoining thighs in one square block;  
Loin broad and flat, thick-fleshed, and free from dip;  
Back ribs "well-home," arched even with the hip;  
Hips flush with back, soft-cushioned, not too wide;  
Flanks full and deep, well forward on the side;  
Fore-ribs well flushed, and rounded like a drum;  
Fore-flanks that even with the elbow come;  
Crop "barrelled," flush with shoulder and with side;  
Girth large and round—not deep alone, but wide;  
Shoulders sloped back, thick-covered, wide at chine;  
Points snug, well fleshed, to dowlap tapering fine;  
Neck-vein filled up to well clothed shoulder point;  
Arm full above; turned in at elbow-joint;  
Legs short and straight, fine-boned 'neath hock and knee;  
Belly cylindrical, from drooping free;  
Chest wide between the legs, with downward sweep;  
Brisket round, massive, prominent and deep;  
Neck fine at head, fast thickening towards its base;  
Head small, scope wide, fine muzzle, and dished face;  
Eyes prominent and bright, yet soft and mild;  
Horns waxy, clear, of medium size, unfled;  
Tail fine, neat hung, rectangular with back;  
Hide soft, substantial, yielding, but not slack;  
Hair furry, fine, thick-set, of color smart;  
Udder well forward, with teats wide apart.  
These points proportioned well, delight the eye  
Of grazer, dairyman and passer by,  
And these to more fastidious minds convey  
Appearance stylish, feminine and gay.





## HORTICULTURAL.

### Prepare Your Ground for Planting Fruit Trees.

One of the chief causes of the death of so many fruit trees, is the very poor and slovenly manner in which the soil is prepared to receive them. It is generally plowed but once, and then not more than half plowed, partially turning over three or four inches of the soil. A harrow is then run over the ground once or twice, and it is left in a lumpy, cloddy condition. The sub-soil has not been loosened at all. A small hole is dug for each tree, the roots are crowded in the hole, and the same coarse soil is thrown over them. The trees are then left to fight their way in the best manner they can, and by fall if half of them are living the planter is fortunate.

Of course all the blame is laid upon the grower of the trees. They were not good, or they would have all lived. In nine cases out of ten, considering the manner in which the soil is prepared, and the trees are pruned and planted, the only wonder is that all the trees do not die. If they were not exceedingly tenacious of life, and if Nature did not do all in her power to repair the injury inflicted by improper treatment, they would all die.

The object of this article is to call the attention of those who intend to plant trees the present spring, to the importance of properly preparing the soil for their reception. The loss by careless and improper planting, is not only the loss of the price they cost—the loss of the use of the land—of the labor of getting them and planting them—of the time it will take to get new trees to replace those that are dead; but likewise the loss of several crops, or rather several years in the time they will commence producing fruit.

Trees planted in well prepared soil, and properly cared for, grow right on vigorously, and soon attain size sufficient to produce fruit, and speedily reward the skillful planter; while trees

planted in the manner first described, either die outright, or make a weakly, sickly growth, and require many years to come into bearing, if they ever do. Every one must see, then, the great advantage of planting trees properly in well prepared soil.

The ground should be plowed deeply, at least two or three times, and it would be time and labor well expended, to plow the field four or five times, as deeply as possible, thoroughly pulverizing the earth to the depth of ten or twelve inches, at least, making a soft mellow bed for the trees to send their roots into, where they can draw nourishment from the thoroughly comminuted particles of soil, and thus enable the tree to grow rapidly and thriftily into a thing of beauty. If the holes are not dug so large in the soil thus prepared, it is not important, as the whole soil is thoroughly broken up and pulverized, and the roots can go anywhere in search of food.

Of course it is advisable to use the sub-soil plow when it can be done. This will loosen and break up the soil to a greater depth, and enable the roots to penetrate deeper in search of food and moisture. It will almost effectually prevent any injury by drouth, to which we are much subject in this climate.

Sites should be selected for orchards which are well drained, if possible. If they are not naturally so, the ground should be artificially drained. If tiles, or other draining material, cannot be obtained, surface draining should be practiced, by plowing the land in back-furrows—leaving between them an open furrow to conduct away the surplus water.

We are anxious to encourage the planting of trees in every possible way, but we are equally anxious to have them properly planted, and well cared for afterwards. A thrifty young orchard is an exceedingly pleasant sight, and will give more value to a farm than any other investment of the same amount.

[Written for the Valley Farmer.]

### GRAFTING OLD TREES.

Many farmers have more or less of old seedling apple and pear trees, bearing fruit of a quality very inferior, and sometimes nearly worthless. Steps should immediately be taken to change the heads of such trees to good varieties. It should be done gradually, that is a part of the top only should be taken off the first year, and the balance the next, or better still, often, to leave some to be grafted the third year. Trees will not do well if too much of the top is removed at once, and a portion of the top is needed also to protect the young scions from being broken by the wind.

The operation of cleft grafting, suitable for old trees, is very simple, and every farmer should be capable of performing it. If any one thinks he does not know how, let him seek instruction from some competent grafter; there are such

in nearly every neighborhood who could teach him in ten minutes to graft well. First, learn to graft well, and then to graft rapidly.

Scions may be cut early in this month, when there is no frost in them. Shoots of the previous year's growth should be selected, from bearing trees, if possible, and may be covered with moist sand in the cellar, or where they will keep moist and dormant until wanted for use.

When the buds of the trees begin to start freely, the grafting may be commenced. Put two scions into every branch of an inch and a half in diameter. Those of larger size should not be chosen; smaller ones will do well; but if less than an inch in size, one scion will be sufficient.

Choice varieties of plums may be grafted with success upon the native wild plums. M.

### Beetles Destructive to Fruit Trees.

Last summer we received from Mr. Wilson, Olney, Ill., two beetles, which he informed us were very destructive to his young trees. By some carelessness on our part they were mislaid, and we did not find them till a few weeks ago. We then sent them to the distinguished entomologist, Benj. D. Walsh, Esq., of Rock Island, Ill., who has furnished us with the following scientific and exceedingly interesting article.

We will further state, that if our readers find any species of destructive insects preying on their fruit trees or other vegetation, and will send specimens to us, we will forward them to Mr. Walsh, who will furnish an article for our journal, giving their names, habits, &c., and the best plan of counter-working them in their depredations. This will add a new and very interesting feature to the *Valley Farmer*.

Very small insects are best packed in quills, plugging both ends of the quill with cork or wood. Larger ones may be inclosed in any small pasteboard box—a gun-cap box does very well—surrounded by cotton or wool without increasing the rate of postage. But such boxes should be secured at the opposite end of the letter to that where the stamp is stuck on; otherwise they would be crushed by the post-master in stamping it. Any insect may be killed without injury, by inclosing it in a small glass bottle and immersing the bottle in boiling water up to the cork. (Strange to say, this never breaks any bottle, big or little, thick or thin.) They should then, without suffering them to get dry, be immediately packed and dispatched.

The following is a copy of the letter, inclosing the beetles:

N. J. COLMAN—Dear Sir: Inclosed, I send you two bugs, of a kind that I never saw or

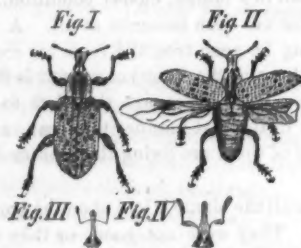
heard of until this spring. I find them very destructive to my fruit trees. They attack apple, peach and pear, but prefer apple to either of the others. Their manner of working is to eat the young shoots off where they start out from the old wood; and in a young orchard, where the trees are small, two or three of them will destroy a tree in a very short time.

Yours truly, J. P. WILSON.  
Olney, Ill., May 19, 1861.

The following is the article from Mr. Walsh in relation to them:

### THE NEW YORK WEEVIL.

ED. VALLEY FARMER: The bugs, or, more properly speaking, beetles, sent you by Mr. Wilson, are the *Ithycerus noveboracensis* of Forster\*—literally the *Straight-horn of New York*. The first, or "generic," name, is founded upon the fact, that, unlike most allied species, the antennæ or horns are straight, and not elbowed or flail-shaped, as they are, for example, in the common *curculio* and in the true *grain-weevil*.—The distinction will be seen at once by comparing Fig. 1 (which represents Mr. Wilson's in-



sect) with Fig. 3, which represents the antennæ of the common *curculio* magnified, and with Fig. 4, which represents the antennæ of the grain-weevil, also magnified. The second, or "specific," name (*noveboracensis*), is simply the Latin for "of or belonging to New York," and was given ninety years ago to the insect, because Forster, its original describer, received it from that State. In English it is known as the *New York Weevil*.

Although, however, we are obliged to call this beetle the New York Weevil, it is not an Eastern but a Western species. Like the chinch-bug, and many other noxious insects which swarm in the Valley of the Mississippi, it is extremely rare in the Eastern States, and conse-

\* In the Smithsonian Catalogue of Coleoptera, this insect stands as the *ITHYCERUS CURCULIONOIDES* of Herbst, Forster's name being given as a synonym. But Forster's book was published in 1771, and Herbst did not publish till 1785. Consequently, by the rules of scientific etiquette, Forster's name takes the precedence, as has been clearly seen by Dr. Fitch, the State Entomologist of New York. (See his 3d Report on Noxious Insects, p. 13.)

quently has attracted but little attention there among those who devote themselves to the special study of those species which infest the farm, the garden, and the orchard. For example, the Reports on the Noxious Insects of the State of New York, by Dr. Fitch, fill two octavo volumes; and yet all that is there said of this insect is comprised in *six lines*.

Many years ago, Dr. Fitch received specimens from the State of Wisconsin, with an account very similar to Mr. Wilson's, of its injuring apple trees there very seriously. In the year 1861, I had word of what I have no doubt from the description was the same insect, attacking apple trees in the same State and in precisely the same way. Until Mr. Wilson observed its habits, I am not aware that it was ever noticed attacking fruit trees in the State of Illinois. It is now figured, I believe, for the first time, in your widely-circulating paper, and probably many of your readers will recognize it at once as an old and well-known enemy.—The colors are very quaker-like—ash-grey and black—except the "scutel," or small semi-circular space between the butts of the wings, which is yellowish.

In the neighborhood of Rock Island it occurs rather sparingly in May and June, upon forest trees (generally oaks), and often as much as a mile from any fruit trees. I suppose I have met with some twenty specimens in the last four years. The probability is, therefore, that it is not exclusively confined to fruit trees, but depredates pretty generally upon trees of many different kinds. In the same way, the two pernicious borers of the apple tree—the apple tree Saperda, and the apple tree Buprestis—infest many different kinds of trees which are found in our woods and forests.

I said before that this insect was, correctly speaking, a *beetle* and not a *bug*. Popularly speaking, almost all insects are called bugs, but entomologists confine the term to a large group or, technically speaking, an *order*, of which the stinking bugs often found on blackberries and raspberries, the chinch-bug, the squash bug and the bed-bug, may be taken as examples. All of these (called *Heteroptera*) are characterized by having no jaws at all, but simply a pointed beak, with which they suck the juices of the object upon which they depredate, and also by having the tips of their front wings lapping over one another when not in use. The bed-bug is an exceptional case; for it has nothing but mere rudimentary wings. On the other hand,

the order of beetles (*Coleoptera*) is characterized by having two pair of jaws, working horizontally one over the other, and by the front wings being converted into horny wing-cases which do not over-lap when not in use, but fold side by side so as generally to make a very even, snug joint. By comparing Fig. 1, which shows the New York Weevil with its wings and wing-cases closed, with Fig. 2, which shows it with its wing cases expanded and the left wing fully open, while the right wing is still doubled over in the way in which it is packed under the wing-case (elytrum), this character will be understood at once. Few persons unacquainted with the natural history of insects, would suppose, upon cursorily examining a beetle, that under that hard, shelly form was almost always concealed a pair of ample wings as powerful as those of a fly. I have known many men deny that the common curculio had wings, or was able to fly from tree to tree; but any one may easily satisfy himself of the fact by lifting up its horny wing-cases with the point of a pin. We may take as familiar examples of the great order of beetles, the pinch-bug, the horn-bug, the rose-bug, the May-bug, the striped cucumber-bug, and the June-bug (found only in Southern latitudes).

It may be as well to notice here a remarkable distinction between the sub-kingdom of *Vertebrata*, or animals with a back-bone and an internal skeleton, and the sub-kingdom of *Annulata*, or animals such as lobsters, insects, leeches, and earth-worms, which are formed of a succession of numerous rings, and have the more or less hard and shelly skeleton to which their muscles are attached on their external surface. Whenever a vertebrate animal, for example a bat or bird, has wings, they are manufactured out of the anterior pair of limbs, which limbs are typically four in number. Hence the pictures which we often see of vertebrate angels with a pair of arms and a pair of wings, both growing out of one and the same pair of shoulders, are in the eyes of every naturalist to the last degree absurd, offensive and impossible. If Nature had wished to construct a mammalian angel with wings, she would, according to all the analogies of natural history, have metamorphosed the human arm into an angelic wing by enormously lengthening some of its bones, as she has done in the case of the bat, and enormously developing the muscles of the chest, as we see in the pigeon and other swift-flying birds. On the contrary, whenever an insect has wings—for there are



some few insects which, like all the other Annulata, never acquire even rudimentary ones—the wings are superadded to the typical number of legs, which is six, and are never formed by the transformation of one or two pair of legs into organs of flight. Hence it results, that while some vertebrate animals have two legs, some four, and some, as the snake, none at all, all true insects, without exception, have in the perfect state exactly six legs—neither more nor less. Spiders, mites, and wood-ticks, indeed, have eight legs, but they are not true insects, but belong to a separate class of the Annulata known as *arachnida*.

Of the 70 or 80 families into which the order of beetles is divided, the great *Curculio* (or weevil) family, to which our insect belongs, is one of the most extensive and at the same time one of the best characterized. They all have a snout, more or less long, at the end of which are situated their jaws, whence they are often called snout-beetles. Some species, as the beetle which is produced from the maggot of the hazel nut, have this snout longer than the entire body, and as fine as a horse-hair. Still, even here, with the assistance of a magnifying glass, the jaws are distinctly visible at the end of the snout; whereas the beak of the true bugs is pointed, and has no jaws at the end of it. In the Fig. of the New York Weevil the left upper jaw (or *mandible*) is shown protruded in the way in which it is often carried.

Schönherr, in his great work on the *Curculio* family, describes nearly four thousand distinct species as found in the whole world. The *curculios* have perhaps been more neglected in the United States than any other family of beetles; and yet we find over 300 species of them in the Smithsonian Catalogue; and there is scarcely a cabinet of any magnitude that does not contain many undescribed ones. I recently forwarded 110 Illinois *curculios* to Dr. John L. Leconte, of Philadelphia, for examination; and he reports no less than 11 of the number to be new to science. Besides the weevils already referred to, the common pea-bug (*Bruchus pisi*) also belongs to the great *curculio* family, and like other species of the subordinate group to which it pertains, has straight antennæ similar to those of our insect.

In the years 1827, '28 and '29, as we learn from the Hon. P. B. Fouke, "the black weevil" (probably *Sitophilus remotepunctatus* of Schönherr) injured and destroyed the wheat in the stack and in the granary in St. Clair county (Ill. Agr. Trans., Vol. II., p. 315); and I have re-

cently received from Springfield, Ill., specimens of this mischievous insect, with a statement that it was supposed to have been sent along with a sample of seed-wheat from the Patent Office last fall. The rice-weevil is a somewhat smaller species belonging to the same genus, which often destroys a great deal of rice in the warehouses of our merchants.

The New York Weevil is not known in the grub or larva state. As the larvæ of almost all the weevils, however, are internal feeders, we may conjecture with considerable probability that its larva burrows in the bark or the wood of some tree or other—perhaps the oak. The larvæ of almost all the weevils are whitish, fleshy, footless grubs, with a horny head of some darker color, and with the body more or less curved. The well-known maggot found in hazel nuts, is probably not unlike that of the New York Weevil, though of course much smaller. The larva of the weevil of the palm tree is as big as a man's thumb, and is considered a great delicacy in those tropical countries where it occurs, not only by the natives but by many Europeans. "The late Sir John La Forey," says Kirby & Spence, "who was somewhat of an epicure, was extremely fond of it when properly cooked." This delicious morsel is called *Grugru*.

I have entered into more detail, perhaps, on this matter of insects, than may be agreeable to some of your readers; but the importance of the subject, as a question of dollars and cents, must serve as my excuse. Taking one year with another, I have no doubt that in the single State of Illinois, property to the extent of twenty millions of dollars is annually destroyed by insects. But the number of the different species which attack our crops is so great, that without some little attention to system it is impossible for any farmer to tell the world what particular species is molesting him. For example, under the popular name of "weevil," no less than six distinct insects are confounded in various agricultural publications, two of which are in reality true grain-weevils, attacking grain only in the stack and granary; two belong to the order *Diptera* (two-winged flies), and attack it in the field; and two belong to the order *Lepidoptera* (butterflies, and moths or "millers,") and attack it generally in the granary, but sometimes in the field. The consequence is, that from the failure on the part of the observer to identify the particular insect he refers to, a great mass of information, that would otherwise be of the highest practical value, becomes



utterly worthless. It is just as if a farmer was to recommend a particular method of feeding and wintering stock, without making it clear whether he was talking about horses, or oxen, or sheep, or hogs. With a little attention to system, every agriculturist may make discoveries of the highest practical importance as to the best method of counter-working noxious insects. Without such attention, even if he make discoveries, he cannot communicate them to the world, any more than he can write an article for the *Valley Farmer* without first learning his letters.

Before we talk of a complete remedy for the depredations of the New York Weevil, it will be requisite carefully to study its natural history, not only in the perfect, but also in the larva, state. When we know where it breeds, and what cannibal and parasitic insects prey upon it, there will probably be some weak point in the fortification discovered, where the attack may be advantageously directed. In the mean time, as it has the same habit as other curculios, of dropping suddenly to the ground when alarmed, we may attack it in the same way as its brother "the little Turk," by spreading sheets under the trees it infests, or, if small, holding an inverted umbrella under them, and jarring it off the boughs. When captured, it is good to treat it as the backwoodsman treated the horse-thief—make it promise not to do so any more.

BENJ. D. WALSH.

Rock Island, Ill., Feb. 3, 1862.

[Written for the Valley Farmer.]

### GARDEN HINTS FOR MARCH.

By Carew Sanders.

If the month of February has afforded no opportunity to get in a few crops for earliest use, the drying winds and increasing suns of March will have so melted away the remains of frost, and dried up the soil, as to leave no hindrance to its working. Sometimes, however, we have a wet spell after the first breaking up of winter, in which case all working of the soil, and seeding, should be left a little longer, until it becomes sufficiently dry to crumble and separate easily. There are spots always to be found, which from elevation or shelter will be found dryer than the rest. These will of course be seized on for earliest use. The sooner all the hardy vegetable seeds are in the ground after this the better—radishes, lettuce, spinach, beets, peas and potatoes, will claim attention first, as all these commence earlier to yield their products for the table.

The early cabbage plants should be coming along in the hot-bed ready for the open air towards the end of the month, while such crops as carrots, parsnips, salsify and onions, should be got in as early as possible, in order that they may have a long season to grow in, before the

hot, dry weather of midsummer sets in, which checks the growth of these vegetables of temperate climes, but accelerates the growth of those semi-tropical kinds, melons, cucumbers, tomatoes, okra, &c.; and to this point, in the cultivation of all plants, due attention should be given, which is too often overlooked.

From the middle to the end of the month, beds of cabbage and celery may be sown. The cabbage may be the Flat Dutch or Drumhead variety, and intended to form a succession to those raised in hot-beds, to come in use during the late summer and fall months, while several sowings should be made later for winter use—celery to be once transplanted, 4 inches apart, before shifting to its final quarters, about which some directions will be given hereafter.

It should always be borne mind, that to raise choice, tender, well-flavored vegetables, a quick growth should be secured, and this can only be done by good cultivation and a rich soil. Vegetables grown on poor soils and badly cultivated, are apt to become stringy, tough and strong. Hence only so much should be attempted as can be done well. It is an error often fallen into by farmers and others unfamiliar with what may be grown on a small space, to plant or sow too largely of one thing, and not pay enough attention to a succession of crops, or a lengthening of the season of each particular crop. Thus, many persons if they have, say eight quarts of peas for the season's sowing, will not unlikely sow it all at once, or at most twice, and the crop come nearly all in together, and be more than can be used, and soon over; whereas, had two quarts only been sown at a time, at intervals of a fortnight, or several varieties been chosen of early and late maturity, and sown at twice, green peas may be had for a period of two to three months, and as by this time the hot weather is at hand and green corn and other summer kinds in, green peas are less desirable. So also of radishes, lettuce, and others—several crops may be grown during the spring, and the table constantly supplied until their place can be filled by other seasonable varieties. If just enough of each is sown at a time to supply the wants of the family table, and but little more, it is more likely to get better cultivated and attended to, because requiring less time and labor, and will certainly yield better returns and give better satisfaction than the opposite plan.

The same may be said of the root crops (leaving potatoes, cabbage, and such staple vegetables out). A few bushels of the others will supply a moderate-sized family all the winter with such as carrots, parsnips, salsify, beets, &c., and yet these are precisely the little luxuries from the garden that we cannot recommend farmers to do without. There are but few of the products of the kitchen garden that we can willingly do without, and no person who has been once accustomed to them likes to be without them. Instead of sowing a large breadth of each kind, and then neglect them by allowing them to stand too thick, go unhoed, and grow up in weeds, and produce only a few small, stunted, tough, unpalatable things, just calculate about how much ground it will take to produce

all you want, allowing of course a little margin; limit yourself to that, but put no limit on its after cultivation—do that thoroughly, and we warrant the result will prove satisfactory. A half a dozen rows of each of the above articles, say 50 feet long, will be amply sufficient for any ordinary sized family. Market gardeners, and those who grow for large hotels, &c., only require to sow extensive breadths of garden vegetables, as they expect to devote an amount of time and labor on a given space that would almost scare a farmer unacquainted with the business. Farmers, however, should devote just as much labor and skill on the limited amount they do grow, as the gardeners; but it would be folly for them to attempt to grow ten times larger patches of everything than their families needed.

#### HINTS ON PLANTING STRAWBERRIES.

We believe that spring is the best season of the year to set out strawberry plants, and not only that, but as early in the season as the state of the weather and the soil will permit; for although it may be transplanted successfully during all the spring and up to the period of fruiting, yet, it being a perfectly hardy plant, it commences to grow early, and it is unquestionably better to remove it before it commences to grow, so that the plant may have the benefit of its new fibres in its new and final location, thereby becoming better established, and having a longer season to elaborate and mature its heart or fruit bud for the next year.

The roots of the one-year old strawberry plant are solid and firm, with a brown skin, and are capable of resisting more exposure and rough usage than at any other period of its growth; for a little later these main roots are covered with new, white, fine fibres, which can hardly be removed without being destroyed, and the plant have its work to do over again, or in the summer previous the roots of the same plant will be large, thick, fleshy, but soft and white, and easily dried out and destroyed by exposure. The roots taken up entire and planted with care at this period, they are ready to start right off at the first movement of vegetation, equally as strong and sure as if they had not been removed. And this is the reason why we claim spring, before they have commenced to root afresh, to be the very best time of all to transplant. But the main object in touching on this subject now, is to point out an error in planting which persons unacquainted with the subject are liable to fall into, loose their plants in consequence, and perhaps blame the nurseryman or any one but themselves for the loss—we allude to the burying the heart of the plant below the surface, thereby smothering the life out of it; care should always be taken not to do that, or, what is as bad, set the plant in a basin, and the first rain washes the soil down in, and compacts it thoroughly round the heart.—Better than do this, lay the roots along on the surface, and throw a handful of soil over them, and no more.

Thy best way is to have your ground raked fine, smooth, and level, then with a trowel or your hand, make a hole several inches broad

and deep, spread out the roots to their full length, with the finger and thumb of the left hand, holding the plant by the collar, to keep it just even with the surface, and with the right hand fill in with soil and fasten the roots well, leaving the heart just out of the ground and no more.

We cannot close these remarks, without recommending everybody who owns a rod of land to plant abundantly of so delicious a fruit as the strawberry. Do by it the same as we have recommended for vegetables. Plant a bed the size, and no more than can be well taken care of, and be assured that we have varieties that will yield twice as much as the best crop of potatoes on the same ground—and who would be without so productive, so profitable and delicious a fruit?

#### GRAFTING.

N. J. COLMAN, Esq.—*Dear Sir:* For the benefit of your readers, I will give you my experience in grafting the past season. My experience is not so great as I might wish, yet I think it might be of some service to those who have had less than myself, and it is for such that I write.

Apples I need not say much about, for almost every body who can handle a jack-knife, can graft them, they taking very easily. Grafting on sections of roots, I condemn. I would not like to plant out an orchard of such trees, and consequently cannot recommend others to do so. I prefer budded trees to grafted, but there are circumstances where grafting is to be recommended and where it will be very profitable.—Old trees that have grown in the orchard for years, without producing a paying crop, or such as bear poor and inferior fruit, may be grafted to better kinds, with great ease and profit to the owner.

From the first to the twentieth of April, I think the best time for grafting apples. When grafting large trees, I saw off the ends of the limbs where they are from one-half an inch to three inches in diameter, according to size of trees and circumstances, and split with a grafting chisel or knife, and put in two grafts, cut wedge-shape, and put them in so as to have the inside bark of the limb and scion meet, for if they do not come in contact the scion cannot unite with the tree. Where such large limbs are grafted, no tie is needed, and all you want is to protect the scion from the drying atmosphere, by applying clay or grafting wax to the wound. Pears may be grafted in the same way with equal success, and it would be a very great improvement to have some of the finer varieties of pears take the place of the little astringent and knotty things to be found on some places.

Nothing would be better for such trees than a re-grafting.

I grafted cherries the past season for the first time. The stocks were three year old Mazzards that had become too large for budding. I sawed them off close to the ground, and split with a grafting chisel, or rather I cut them by applying the chisel on the side, and then striking it with a mallet, in this way making a clean cut as with a knife, and then I inserted one scion on the side where the cut was smooth, and covered the wound with grafting wax. This I did after the stocks had started into leaf. Some had leaves nearly or quite an inch long; and I think that those that were farthest advanced in growth united best. Out of some twelve hundred grafts, about one-half grew and made handsome trees, making an average growth of from six to eight feet, with lateral shoots within one to three feet from the ground. The growth, however, was not as good as those that had been budded the previous summer. I think that my scions were too forward, else I would have had more to grow. This was the first time that I had grafted cherries, and I grafted late believing it to be better with the cherry. If any one else has grafted the cherry, I should like to hear of the result, how it was done, and at what time.

Peaches, I have never grafted, and have always been told by my seniors in the business, that they would not take well; but I am of a different opinion on account of an experiment that I tried last season. I had a few hundred peach stocks that were not budded on account of the drouth of the previous summer. These I took up, and planted in a row by themselves, and when they had leafed out, I cut them off near the ground, and cleft grafted them—used no tie, but simply waxed them. I put on five kinds of apricot, and the hard-shell almond, and they grew finely. Very few failed to grow; and from this experiment, I think, the peach will grow when grafted late and the stock has leafed out; but care must always be taken to have the scion in good order. Cut early, and keep from swelling by keeping in a cool place; and do not let it dry out. Bury them on the north side of a shed, house, or wall; or, better still, put them in damp saw-dust or moss, in a box, and put in an ice-house—this applies to scions of every kind.

I grafted some sixty grapes the past season.—The stocks were the wild vine in the woods; did not take them up, but grafted them where they stood. They were from one-third of an

inch to two inches in diameter. Grafted April 6th, when the sap was already flowing. Grafted them cleft, whip, and on the sides where stocks were too small for cleft and too large for whip grafting. I intended grafting earlier, but as the scions came from the East, and I had to wait until they came, I think the grafting was done too late. I think the grape should be grafted earlier than anything else—say, the two last weeks of March, or just before the sap begins to rise. About one-fourth of my grafts grew and made fine wood. Those stocks that were from one-half to three-quarters of an inch in diameter, grew best.

While speaking of the pear, I forgot to mention that I grafted the past season about a hundred on quince stocks, that united well and made a handsome growth.

The grafting wax which I used was made of equal quantities of rosin and bees-wax, melted together, and some lard added to make it soft and pliable and prevent it from cracking when cold. About one pound of lard to ten of the mixture is usually sufficient. This wax is put on with the hands. To prevent its sticking to your fingers, put some lard or oil on them.

E. A. RIEHL.

[Written for the Valley Farmer.]

#### The Mo. Fruit Growers' Association.

ST. LOUIS, Mo., 14th January, 1862.

The third annual meeting of this Association was held in the Probate Court Room, pursuant to the motion of adjournment. The late President, Mr. N. J. Colman, in a most appropriate address, introduced the President elect Dr. C. W. Spalding, who, upon taking the chair, addressed the meeting in a most beautiful and forcible manner—in the course of which he alluded to the importance of changing the designation of the Association, so as to allow of a wider scope of useful knowledge and discussion—suggesting that the name of Missouri State Horticultural Society would better meet the wants of the members than the more limited one of the State Fruit Growers' Association; and alluded in a most interesting manner to many of the wonderful phenomena of vegetable life.

Fourteen new members were admitted.

On motion a committee of five was appointed to examine and report upon the articles upon the tables of the Society, viz.: Dr. L. D. Morse, W. S. Jewett, E. B. Colman, W. C. Flagg, and Dr. H. Claggett, who reported the following articles on exhibition.

#### APPLES.

By H. T. Mudd: Wine Sap, Harrison, Milam, Winter Sweeting, White Winter Pearmain, Fallawalden, Campfield, Priestley, Small Romanite, Grindstone, and seven varieties not known.

By W. S. Jewett: Pennock, Wine Sap, Pryor's Red, Rawles' Janet, Grindstone.

By J. J. Kelley: Winter Cheese, Pryor's Red, Wine Sap, Fallawalden, Small Romanite, Rawles' Janet, Newtown Pippin, Yellow Bellflower, Smith's Cider.

By John A. Pettingill: Small Romanite, Rhode Island Greening, Roxbury Russett, American Pippin, Rawles' Janet, Pennsylvania Red Streak, Pryor's Red, Baldwin, Brabant Bellflower, Yellow Bellflower, Wine Sap, Newtown Pippin.



By Bayles & Bro.: Newtown Pippin, Vandervere, Rawles' Janet, White Winter Pearmain, Small Romanite, Wine Sap, Pennsylvania Red Streak, McKinley, Curtis Pippin, Ortley, Pryor's Red, Northern Spy, Yellow Newtown Pippin, White Pippin, Red Sweet Pippin.

By Dr. Claggett: Newtown Pippin.

By Dr. Spalding: Newtown Pippin.

By W. C. Flagg: Rome Beauty.

By L. D. Votaw: Five samples of seedling apples, and two samples of bottled cider.

#### WINE.

By John A. Pettingill: Samples of Blackerry, Black Currant and Red Currant wine.

By American Native Wine Company, through their agent: Isabella and Catawba wines of a great variety of brand.

#### PEARS.

By Mr. Pettingill: Pound Pear.

By Mr. Mudd: Several specimens not known.

#### IMPLEMENTS.

By Mr. Benj. Roth: German Karst and Canterbury or three-pronged hoes, for working grapes and fruit trees.

Letters were received from several members and friends regretting their inability to attend, among which one from Mr. F. K. Phoenix was enthusiastically received as a Horticultural curiosity, of which we conceive the following extract worthy of preservation:

"Am exceedingly proud of your devotion to the noble cause these dimly sulphurous and stealthy times—thanks to, in fact, any body but horticulturalists! As I live, I can't think of any one that loves horticulture in any way connected or responsible as I look upon the case. In fact, I must think our troubles are owing to a bad diet and education among our politicians and demagogues generally; that, in fact, they don't know a Greening from a Grindstone—a Delaware from a Fox, and a Concord they surely never heard of—no, nor Bartlett's from Choke Pears—would to Heaven they might once know, at least the latter! They do have Hookers among them, doubtless—some Virginia Crabs and a Pryor's Red—while some might inquire about Father Abram in this connection, and I presume the most are excessively fond of Brandy-wine and the Belle Lucrative; but I really think they must be Clingstones—all—and a very dwarf, inferior kind of Blood-clings at that—excessively Billious. May the Yellows take them, and no seeds or buds or grafts, or 'Yellow-Boys' ever be left to propagate the species."

The Corresponding Secretary reported having received copies of the Patent Office Report on Agriculture, and a package of seeds for distribution among the members.

The Business Committee reported as a subject for discussion, a List of Fruits for General Cultivation, and recommended the formation of a List of Summer, Fall, and Winter Apples—1st. For General Cultivation; 2d. That Promise Well.

It was on motion,

RESOLVED, That Downing be adopted as the standard in Nomenclature. When the following List of Fruits was discussed and adopted:

#### SUMMER APPLES.

For General Cultivation, for Market and Family: Early Harvest, Red June, Maiden's Blush.

Promising Well: Kirkbridge White, for Family. Red Astrachan, for Market. High-top-sweet, for Market and Family.

#### FALL APPLES.

For General Cultivation, for Market and Family: Rambo, Pennsylvania Red Streak.

Promising Well: American Summer Pear and Fall Pippin, for Family. Porter, Primate, Fall Queen, for Market and Family.

#### WINTER APPLES.

For General Cultivation: Yellow Bellflower, for Family. Ortley, Rawles' Janet, Wine Sap, Pryor's

Red, Michael Henry Pippin, (Newtown Pippin when grown upon limestone soils), for Market and Family. Promising Well, for Market and Family: Smith's Cider, Campfield (sweet), Hubbardston's Nonesuch, Tallman's Sweeting, White Winter Pearmain, Fallawalden.

#### PEACHES.

For General Cultivation: Troth's Early, Large Early York, Old Mixon Free, Crawford's Late, Old Mixon Cling, Heath Cling, for Market and Family. Grosse Mignonne, Morris' White, for Family only. Crawford's Early, Red Cheek Melocoton, for Market.

Promising Well: Yellow Alberge, Columbia, Rare-ripe Late Red, Stump the World, Smock's Free, Washington, for Market and Family. Big Yellow (a local peach), for Market only. President, for Family.

#### SUMMER PEARS.

For General Cultivation: Bartlett, for Market and Family.

(Dwarf.)

Promising Well: Doyenne d'Ete, Madaline, Tyson, for Market and Family.

#### FALL PEARS (Dwarf).

For General Cultivation: Louisa Bonne de Jersey, Belle Lucrative, White Doyenne, Seckel, Duchess d'Angouleme, for Market and Family.

Promising Well: Flemish Beauty, Beurre de Brignais or Des Nonnes, Grey Doyenne, Beurre Bosc (standard only), Buffum (dwarf and standard), for Market and Family.

#### WINTER PEARS (Dwarf.)

For General Cultivation: Glout Morceau, Winter Nelis, for Market and Family.

Promise Well: Beurre d'Aremberg, Vicar of Winkfield, for Market and Family.

#### STRAWBERRIES.

For General Cultivation: Wilson's Albany, for Market. McAvoy's Superior, for Home Market and Family. Longworth's Prolific, for Market and Family. Monroe Scarlet, for Family.

Promise Well: Cremona's Perpetual (or Imperial, a local name), for Market and Family.

#### RASPBERRIES.

Promise Well: American Purple or Purple Cane, for Family. Ohio Everbearing, American Native Black Cap, for Market and Family.

#### BLACKBERRIES.

For General Cultivation: Lawton, for Market and Family.

It was on motion,

RESOLVED, That inasmuch as many experiments are being tried to test different varieties of the grape, this Society will not, at this annual meeting, recommend a list of grapes for general cultivation.

It was on motion,

RESOLVED, That, in future, the annual election of Officers of the Society will be the special order at the opening of the afternoon session of the second day of the session. Adopted.

It was on motion,

RESOLVED, That a Committee of Five be appointed to test the Wines presented to the Society. Adopted.

Whereupon, the President appointed Messrs. N. J. Colman, E. A. Reihl, M. G. Kern, H. T. Mudd, T. R. Allen.

It was on motion,

RESOLVED, That Mr. N. J. Colman be requested to furnish the Society with a copy of his correspondence with Dr. Warder upon the identity of the New York Pippin, Baltimore Red, Ben Davis, and other supposed synonyms. Adopted.

It was on motion,

RESOLVED, That the Constitution be amended by striking out the words, "Fruit Growers' Association" in Article I, and insert the words "State Horticultural Society," in their stead. Adopted.

It being the special order of election, the President appointed Dr. H. Claggett and Mr. H. T. Mudd tellers; and upon the first ballot the entire officers were re-elected, as follows:

President—Dr. C. W. Spalding, St. Louis.  
 Vice-Presidents—1st Cong. District, Dr. A. W. McPherson, Allenton, St. Louis county; 2d District, Prof. G. C. Swallow, Columbia, Boone county; 3d District, Gen. M. Horner; 4th District, W. L. Irving; Buchanan county; 5th District, Eldridge Burden, Lexington, Lafayette county; 6th District, Wm. C. Price, Green county; 7th District, W. S. Jewett, Pevely, Jefferson county.

Recording Secretary and Treasurer—Wm. Muir, Laborville, Melrose P.O., St. Louis county.

Corresponding Secretary—Dr. L. D. Morse, Allenton, St. Louis county.

It was on motion,

RESOLVED, That Mr. W. C. Flagg be appointed a committee to confer with the Illinois State Society, in regard to publishing the transactions of this Society along with theirs. Adopted.

It was on motion,

RESOLVED, That the President be requested to appoint Five Delegates to attend the next annual meeting of the Ill. State Horticultural Society. Adopted.

It was on motion,

RESOLVED, That a subscription be opened, in order to pay for the publication of the proceedings of this Society in a separate form or along with those of the Illinois Society, and to aid in paying the expenses of the Delegation, if necessary. Adopted.

Whereupon, a number of the members gave their names for various sums.

It was on motion,

RESOLVED, That the warm thanks of this Society, be, and are hereby tendered to the Hon. Board of County Commissioners of St. Louis County, for furnishing to us the use of the Probate Court Room free of charge, exhibiting thereby an appreciation of the important interests this Society is fostering and endeavoring to promote. Adopted.

It was on motion,

RESOLVED, That the thanks of the Society are also tendered to Mr. James Quigley, the gentlemanly Janitor of the Court House, for his kind attention to our comforts. Adopted.

The members of the Society in attendance from a distance presented the following resolution,

RESOLVED, That our thanks be, and are hereby tendered to our St. Louis brethren for their very hospitable reception and entertainment during the present session of this Society. Adopted.

It was on motion,

RESOLVED, That the Secretary be instructed to prepare the minutes of the transactions of this Society for publication in the "Valley Farmer." Adopted.

It was on motion,

RESOLVED, That this Society adjourn till the second Tuesday of January, 1863. Adopted.

#### REPORT OF THE WINE COMMITTEE.

The Wine Committee respectfully acknowledge the receipt, from the Agent of the American Wine Company, of samples of Native Champagne (sparkling), being a mixture of Isabella and Catawba; Missouri Cabinet (sparkling), Catawba of the vintage of 1860; Missouri Cabinet (sparkling), Isabella, 1860; Dessert Wine, Missouri Catawba (sparkling), 1860; Missouri Catawba (still), 1860.

From Mr. Pettingill, of Bunker Hill, Ill., samples of superior Red Currant Wine, and Black Currant Wine, and New Rochelle Blackberry Wine.

From Mr. Votaw, Eureka, Mo., samples of cider.

There being no duplicate samples from other parties, there was no competition, and the Committee, therefore, merely acknowledge the receipt of the samples. Respectfully submitted, N. J. COLMAN, Ch.

The following are the Standing Committees appointed by the President:

ON BUSINESS—N. J. Colman, Dr. A. W. McPherson, C. C. Marwaring.

ON SPECIALITIES—Dr. L. D. Morse, E. R. Mason, Geo. James L. Minor.

ON SYNONYMS—Geo. Husmann, C. T. H. Mallinc-

krodt, J. H. Pettingill.

ON SEEDLINGS—Dr. J. B. H. Beale, Eldridge Burden, John S. Seymour.

ON ENTOMOLOGY—Prof. G. C. Swallow, A. H. F. Payne, Wm. Muir.

This closes the purely business branch of the transactions of the Society, the discussions will be given in succeeding numbers of the "Valley Farmer."

WM. MUIR, Secretary.

#### RHUBARB, OR PIE PLANT.

Next, in point of earliness in spring, to the Asparagus (spoken of in January), Rhubarb claims our attention. In Europe, and in all the large cities of this country, where this plant is best known, it is highly esteemed, and very extensively used for making pies and tarts, and as a sauce. From forced Rhubarb, excellent jam and jelly have been made, the stalks being of tender and delicate flavor. The young stalks also make a wine not inferior to any of our green fruits, while it may be dried, canned and preserved in as great a variety of ways as our ordinary fruits. Thus, in new countries, where fruit is scarce, as well as near large cities, it may well form a valuable addition to our culinary art, as a substitute for early fruit.

It is of easy culture, requiring a deep, rich, and rather damp soil; though excess of moisture should be avoided as liable to rot the roots. The plants may be set three feet apart each way, and may be allowed to stand as long as they continue to throw up strong, stout leaf-stalks and not run too much to seed. When the stalks commence to grow weak and numerous, it should be renovated by removal and division of the roots, put in a new soil, &c. The plants can be easily raised from seed, but as the seed does not re-produce the identical variety from which it was taken, being very apt to come inferior, it is best in all cases to use offsets of known good varieties, which quality can be kept permanent only by so doing. The roots grow very rapidly, and it can be propagated with great facility in this way, and a square rod of ground will supply a large family.

A great number of distinct varieties have been raised and cultivated during a period of many years, but the following three varieties are considered the best at the present day, and embrace all the desirable qualities of this plant for family use:

*Early Scarlet*: This, as its name indicates, is an early variety, with bright red stalks, which are short and comparatively small, but tender, mild and juicy; valuable for its earliness.

*Linnaus*: This is also a tolerably early kind, producing long and large, flattish stalks, with thin skin, juicy, and of mild acid flavor. It is very productive, continuing to furnish its fine stalks fresh and tender the entire summer; bears pulling well, and may be used a longer time than any other variety, and all things considered is probably the best kind we have.

*Victoria*: A late sort, stalks very large, flat and long, with leaves of enormous size; juicy, mild, and of good quality—but does not produce its stalks during so long a season, or so numerous as the preceding, although some gardeners give it the preference. It is, however, a valuable variety.

CAREW SANDERS.



[Written for the Valley Farmer.]

### "TAKING COLD."

If all the evils of the world were enumerated, it would surprise mankind to learn that the most prolific is "taking cold." Yet such is the fact. Little has been written on the subject. It has never, to my knowledge, been thoroughly treated, though constantly talked of.

To-day, nine-tenths of the human family do not understand the principles of taking cold, nor how to treat it, though they have a general notion that it is in some way connected with the weather. The phrase itself is very infelicitous, and contributes to the general error. It is thought to mean literally taking cold into the system; which is an impossibility; for by the term we only express the negative of heat.—Cold cannot possibly be taken into the system. The idea is preposterous.

By taking cold, is meant the influence of a change of the atmosphere upon the system—a change in its temperature. This is the whole of it. If the thermometer always were at 72°, we would hear little of taking cold. In the South this is more or less the case. So with us at the North in July and August. In winter the evil is aggravated by our heated rooms, which are at 80°, while the out-door air is at zero. Here, by going out, there is a change of 80°: and unless the clothing and exercise are adequate, the evils that ensue must be of the most dangerous character. The skin becomes contracted by the cold abstracting the heat; perspiration is thereby checked and kept in the system in undue quantities, or thrown off through other outlets—through the lungs, for instance, or the intestines, whose functions are thus over-taxed. The result of all this is, irritation of those parts of the system most pressed. If no relief is afforded, the next step is inflammation. Hence, sore throat, inflamed lungs, tooth-ache, difficulty with the bowels, head, and various parts of the body, resulting often in disease and frequently in death.

What causes the many fevers? The numerous inflammations? It need not be told that "colds" are the most prolific cause. This is all known; and also known how other diseases—not produced by changes of the atmosphere—are aggravated by it. Hence the prescription of the doctor in guarding against cold. It is for this that the temperature of the sick room is established at 72°; it is here that the great difficulty is felt with the consumptive patient, who is to guard against the cold, while at the same time fresh air is a necessity.

Our climate is a fatal one. It is worse than a pestilence. The Asiatic cholera is harmless compared to it. And yet this evil—a wolf in sheep's clothing—is permitted in our midst. I say permitted; for most of the evil resulting from colds may be avoided. This, however, is doubted by the majority—the great majority—of sufferers, who have their erroneous notions and their various whims on the subject. They aver that cold will be taken, and they not know when and where it is taken. This is true—for, as we before stated, nine-tenths of mankind do not know the process of taking cold.—It is, therefore, difficult for them to avoid it; and in their doubt they become superstitious. But those that do know, are pretty sure to benefit by their knowledge. Who ever sees a doctor with a cold? And yet few people are more exposed. Accidents they cannot avoid; and sometimes they are careless. But a cold can as completely be guarded against—as successfully—as the small-pox. And the knowledge may as readily be acquired as that of vaccination.

But why is it not done? why are people ignorant on the subject? This is a pertinent question—a most truly important one. But people are not only ignorant; they are also careless and headstrong. Like intemperance, catching cold has become a sort of habit, and people permit it. It comes upon them so easily, so gradually, that, ere they are aware, they have a cold. And when they once have it, it is the easiest thing in the world to keep it.—This last needs explaining:

People sometimes have a cold a whole winter—they "cannot get rid of it." They try a thousand and one remedies; and even will make themselves sick to cure it, which will sometimes have the desired effect, as it will give them a comfortable bed, and the warm, uniform air of a sick room, for a week or two. The reason why a cold is so obstinate, and why "more is constantly added," is this: "When



once a "cold is seated," inflammation, to a greater or less extent, is the result. And while the cold continues, the inflammation remains. Now, every exposure, however little, adds to the cold taken; and this acts upon the inflamed parts, which, being tender, and very susceptible, are easily aggravated. For instance, a sore, especially when highly inflamed, will not admit of the stroke which the same part when unaffected would endure. The tenth part of a cold that brought on a sore throat, will affect it as much as the ten parts, or the whole of it, originally did. The least exposure to cold, when inflammation is established, is felt, as we feel the slightest tap on a painful sore.

It should always be borne in mind, then, that the system, when laboring under a cold, is in a delicate condition.

Another grand point: A mere exposure, however sudden and great the change from heat to cold, is not so dangerous as people imagine—it is comparatively harmless. The danger is always according to the *length of the time of exposure*. Let this always be borne in mind. If one minute has an effect, two minutes will have double the amount, three minutes triple, and so on. Though a minute, or five minutes, may not be felt, the influence is still there—but slight; and it takes but a short time for the system to wear it off. An hour's exposure, if the exposure is severe, will be felt; and if the system is weak, and the blood torpid, especially when the body is fatigued, serious consequences may result from an hour or two's exposure.—How then if the hour is extended to half a day or more? Prostration and death are often the result.

But when the above circumstances are excluded; when the body is vigorous and animated, and in active exercise—cold has little effect upon the system. The body is kept warm; the pores of the skin open; and there is no suppression of perspiration. But after fatiguing exercise, sent this individual in the cold air, with no additional clothing, for several hours, and the next morning will find him with a sore throat, or tooth-ache during the night. Various parts of the body are susceptible of being first affected. It is said the weakest are these. It is probably true, that those least capable of resisting the influence are first attacked. Thus a decayed tooth suffers first, in fact all the decayed teeth, before the sound ones are attacked. Most people feel the first effect, in the throat; some in the head—the ear, which, partially or entirely for the time loses its hearing—and the

nose, especially in cases of catarrh. Some show the first symptom in an irregularity of the bowels. In all these cases, each should guard against his particular local liability, which will mitigate, if not prevent, the evil.—Hence, some people are directed to let their beard grow, to shield the throat. Soles, cut out of a woolen hat, and laid into one's boots, will greatly aid protection to the feet, for the dampness affects mostly the soles. "Keep the feet dry," should be a motto with every one. For dampness is another of the causes that lead to the evil of catching cold. It does this by abstracting heat from the body. This will be readily understood by bathing a limb in water, or, what is more effectual a volatile liquid, such as alcohol, chloroform, &c. A sensation of coolness will at once be felt, which is always evidence that heat is being abstracted.

For this reason damp weather is considered favorable to taking cold. A sweaty person is in the same condition. This is a most prolific source of evil. The body while in the act of sweating is not in danger; but afterward, when cooling off. For the excitement which produces perspiration is always one of the best preventives of colds. But the passive condition afterward is all the more dangerous, as there is more or less fatigue, and the circulation more or less languid.

Avoid sweating, then, especially in winter. In midsummer there is little danger, except at evening, unless the nights are also tropic.

The most important thing next to prevention, is a cure. And here there is as much error as in taking cold. All the drugs in the *materia medica* have been used, and a good many more, to cure colds; and all fail, though each is said to have effected cures. Look at the principles of the case, and the point will be clear. The persistence of a cold is *always*—remember *always*—the result of more cold being added. And thus the irritation and inflammation are constantly being kept up. Now, what is evidently the cure? Why, simply to prevent more cold from being taken. A cold, if let alone, and not aggravated by augmentation, will cure itself in two or three days, unless very severe, and then in a few days more. Counter-irritants will relieve affected parts; but it is doubtful whether they will hasten the cure.

But this paper is getting too long. Long as it is, however, it must be made longer by a recapitulation:

First, then, a cold is caused by a change of the temperature of the atmosphere, from heat

to cold. Remember that this is the only, only way in which a cold can be taken. Whether it be in-door or out-door, matters not. This change is aided by dampness, in whatever way it comes in contact with the body. It is also made more susceptible by fatigue of the body. Second—The degree of cold taken is in proportion to the length of the time exposed. This is not generally realized or understood. Third—Cure a cold by letting it alone, and adding no more cold to it. A poultice, or the brush, will relieve affected parts; fasting will alleviate; but they will do little more. Time alone will cure, and not the nostrums you may use. In the fourth place, I will add a few observations which may be of benefit. Avoid being seated by windows when the air is cold without. Avoid open doors; and all currents of air, whether in summer or winter. A windy day in summer often affects a person exposed to it for some length of time—for air in motion abstracts more readily heat from the body than when there is no wind. Avoid sitting with your feet under desks in the corner of the room for any length of time with your back toward the stove in cold weather. I have known fatal results from this practice. Do not change woollen for light clothes in your room in winter, even if the temperature is that of summer; for the habit of wearing thick clothes makes the surface of the body sensitive. If the change in clothing is effected, let it be for a short time, and while the individual is in motion.

Avoid "hardening" yourself by exposure to the cold; for cold affects the rugged as well as the frail. It is a mere matter relating to the surface of the body, and has little to do with strength of limb. It knows only the skin. Every hardening process is so much strain upon the constitution of the man, which he may not perceive at the time, but which will be felt by-and-by, as the accumulating errors of his life press upon him as he approaches old age. Each cold, each exposure, will then tell.

But it will be said these changes in the atmosphere cannot be avoided. They can. Some men do it. It must be done by proper clothing. That is the provision. The clothing should be so adapted, that on the one hand it prevents cold from affecting the surface of the body; on the other, perspiration. When once the body, in cold weather, becomes sweaty, the action of the body must be kept up, till the individual reaches a warm room. A little practice will soon secure a man against taking cold. F. G.

### KATIE'S SECRET.

Some will like this:

The sunlight is beautiful, mother,  
And sweet bloom the flowers to-day;  
And birds in the branches of hawthorn  
Are caroling ever so gay;  
And down by the rock in the meadow  
The rill ripples by with a song;  
And, mother, I too have been singing  
The merriest all the day long.

Last night I was weeping, dear mother,  
Last night I was weeping alone;  
The world was so dark and so dreary,  
My heart it grew heavy as stone!  
I thought of the lonely and loveless—  
And lonely and loveless was I!  
I can scarce tell why it was, mother,  
But, oh! I was willing to die!

Last night I was weeping, dear mother,  
But Willie came down by the gate,  
And whispered, "Come out in the moonlight;  
I've something to say to you, Kate."  
Oh, mother! to him I am dearer  
Than all the wide world beside;  
He told me so out in the moonlight—  
He called me his darling, his bride!

So now I will gather me roses  
To twine in my long braided hair;  
And Willie will come in the evening  
And smile when he sees me so fair;  
And out in the moonlight we'll wander,  
And down by the old hawthorn tree.  
Oh! mother, I wonder if any  
Were ever so happy as we?

### SUBSTITUTE FOR COFFEE.

ED. VALLEY FARMER: As coffee is to be more expensive than formerly, a good substitute will find favor with the lovers of the beverage they cannot now afford. The Chufa or Earth Almond, makes a rich, pleasant, and wholesome drink, better than coffee to my taste, and I would recommend it to coffee drinkers as an excellent substitute.

The Chufa is a tuberous rooted plant like the Peanut. It was introduced into this country from Spain by the Patent Office Agent in 1854. It resembles in taste the Chestnut and Almond. For a chemical analysis of this tuber, see Patent Office Report for 1857.

To prepare them for coffee, the tubers should be roasted very slowly in the oven till they assume a light brown color; then break or mash into small pieces; put into your coffee pot, pour on boiling water, and let them boil ten minutes; serve up with cream and sugar.

Anna, Ill.

A. B.

There is nothing on earth so beautiful as the household on which Christian love forever smiles and where religion walks a counsellor and a friend. No cloud can darken it, for its twin stars are centered in the soul. No storms can make it tremble, for it has a heavenly support and a heavenly anchor.

## Editor's Table.

### Our Publisher—New Arrangement.

It will be seen that MR. BENJ. BRYAN is announced as Publisher in this number. In the multiplicity of our pursuits, we are unable to give that close attention to our publishing department that is required.—We have, therefore, made arrangements with Mr. Bryan to take the complete charge of this department. All Remittances should be addressed to him hereafter. All the business affairs of the office will be transacted by him. By this arrangement we shall have more time to devote to the best interests of our readers. Mr. Bryan is a prompt, accurate, business man, and will labor faithfully to give the utmost satisfaction to our readers. He has been connected with the "Valley Farmer" for several years, and to him is the fine appearance of the "Farmer" mainly attributable. We think this arrangement a highly advantageous one to all parties concerned.

### Two Premium Essays in Our April No.

In our last number we announced that a Premium of \$25 would be awarded to the writer of the best article on the cultivation of Castor Beans. Also, that another Premium of \$25 would be awarded for the best article on the cultivation of Flax Seed.

There are over twenty Essays on these subjects, (and most of them, we are informed, are of rare value,) in the hands of the Committee. They will both be published in our April number. Castor Beans and Flax Seed both command the price of \$1.50 per bushel, and are always a cash article, and we think our readers will find it to their interest to pay some attention to their cultivation. The Essays, we believe, will be worth more than the subscription price of our Journal, and we would be pleased to have our subscribers obtain some new names for the "Farmer" from those wishing to cultivate either of these crops.

**THE BEST BEAN FOR FIELD CULTURE.**—A correspondent inquires which is the best bean for field culture. We answer, the small white Navy Bean. It commands the highest price in market; is productive, and of good quality.

**DR. GEO. H. DADD.**—We are pleased to announce that this eminent Veterinary Surgeon and author of some of the most valuable treatises on the horse in our language, has made arrangements to locate permanently in St. Louis. His office for the present is at the Livery Stable of Messrs. Glasgow & Harkness. As soon as prosperity to our once happy land is restored, he will open a Veterinary College for the instruction of this important art. With so many millions of dollars invested in live stock in the West, and so

many losses by infectious and other diseases, it is strange that so little attention is paid to veterinary science.

**PEACH BUDS DESTROYED.**—On the night of the 13th of February, the thermometer fell in the vicinity of St. Louis to 10° below zero in some places; and in others varying from 5 to 10° below. The peach buds in most localities are entirely destroyed. In some rare locations they were not materially injured. The buds had not been swollen at all, as we could perceive. We never saw buds in better apparent condition to resist cold. The buds are unusually small this year. We have never before known peach buds to be destroyed when in a perfectly dormant condition, by this degree of cold. Will our horticultural friends account for their destruction. The weather preceding had not been very warm—or enough so to put the sap in motion.

**OFFICERS ELECT OF THE ILLINOIS STATE HORTICULTURAL SOCIETY FOR 1862.**—President, O. B. Galusha, of Lisbon, Kendall county. Vice-Presidents—1st District, Charles D. Bragdon, of Cook county; 2d District, Robert Douglas, of Lake county; 3d District, Charles H. Rosenstiel, of Stephenson county; 4th District, J. H. Stewart, of Adams county; 5th District, Arthur Bryant, Jr., of Bureau county; 6th District, J. F. Nash, of La Salle county; 7th District, M. L. Dunlap, of Champaign county; 8th District, K. H. Fell, of McLean county; 9th District, N. Overman, of Fulton county; 10th District, Jonathan Higgins, of Macoupin county; 11th District, James E. Starr, of Madison county; 12th District, G. H. Baker, of Union county. Corresponding Secretary—C. T. Chase, of Chicago. Recording Secretaries—W. C. Flagg, of Madison county, and J. T. Little, of Lee county. Treasurer—S. G. Minkler, of Kendall Co.

**KROOK HORTICULTURAL SOCIETY.**—At the third annual meeting of this Society, held on 6th inst., the following officers were elected for the ensuing year:—President: Dr. F. Knowles; Vice-President, J. H. Sullivan; Secretary, E. H. Wickersham; Treasurer, Chas. Hubble.

### Cotton Seed.

We have now an Agent in Tennessee to procure us a supply of fresh Upland Cotton Seed. We have a large stock on hand of the crop of 1860, it being the best that could be obtained before the Federal forces entered Tennessee—but not more than half of it is certain to germinate, and we prefer to wait, before sending out more, till we get the new seed. As the seed cannot be planted safely before the first of May, our readers will suffer no loss by the delay. We have given particular instructions to our Agent to procure seed saved for the purpose of being planted. When the cotton is left in the bulk before being ginned, as is generally done, it is allowed to heat, in order that the oil contained in the seed may be more or less absorbed by the cotton, giving it a richer and better color and quality. In consequence of this heating pro-



cess, a good deal of the seed is more or less injured, and only a certain per cent. of it will grow. If possible to obtain seed, saved especially to plant by the planters themselves, we shall do it—at all events the very best within our power shall be done.

#### CONTENTS OF NO. 3.

##### Agricultural.

On the Culture of Cotton, - - -	65
Sugar from Sorghum and Imphee, - - -	67
Under-Draining Land, - - -	68
Letter from Hon. M. L. Dunlap, on the Culture of Cotton; Cotton in Illinois, - - -	69
Culture of Sorghum and Imphee, - - -	70
Brazilian Potatoes; Manure, and How to Save It, - - -	71
Ohio Sorghum Convention, - - -	73
Timber, - - -	74
Meramec Horticultural Society, - - -	75
Black Pepper; Make an Asparagus Bed, - - -	77

##### Stock Department.

Big-head in Horses; Take Good Care of the Stock, - - -	78
Training Steers; An Interesting Sheep Experiment, - - -	79
Boiling Feed for Hogs; Varnishing Cheese; Animals Becoming Parents Too Early; the Points of a Short-Horn Cow, - - -	80

##### Horticultural.

Prepare Your Ground for Planting Fruit Trees; Grafting Old Trees, - - -	81
Beetles Destructive to Fruit Trees, - - -	82
Garden Hints for March, - - -	85
Grafting, - - -	86
Missouri State Fruit Growers' Association, - - -	87
Rhubarb, or Pie Plant, - - -	89

##### Home Circle.

Taking Cold, - - -	90
Katie's Secret (Poetry); Substitute for Coffee, - - -	92

##### Editor's Table.

93

GEO. HUSMANN. O. C. MANWARING.

#### HERMANN NURSERY.

HUSMANN & MANWARING, Proprietors,  
HERMANN, MO.

Having much increased our business, we take pleasure in calling the attention of our friends, and the public generally, to our large and complete assortment of Fruit and Ornamental Trees and Shrubs, comprising the choicest varieties of

Apples, Pears, standard and dwarf; Cherries, standard and dwarf; Peaches, Plums, Apricots, Almonds, Quinces, Grapes, Currants, Gooseberries, Raspberries, Strawberries, Blackberries, Shade and Ornamental Trees and Shrubs, Evergreens, Vines, and Creepers, Roses, Dahlias, and other plants, Scions of Fruit Trees, Cuttings and Seedlings of Ornamental Trees, Shrubs, &c.

Most of the varieties were tested here and have proved successful in our soil and climate, and all are warranted true to name.

We would call the special attention of Grape Growers to our large assortment of native hardy grapes, comprising over sixty of the choicest varieties, which we have spared no pains nor cost to procure from the most reliable sources. Many of them have been tested here, and all will be tested in the open vineyard, and we shall recommend none until we have found them successful. This we may now confidently do with Norton's Virginia, Herbemont, Missouri and Concord, they having been tested beyond a doubt.

Descriptive Catalogues sent gratis to all applicants. Orders directed to us personally, or to our local agents, will be promptly and carefully filled.

HUSMANN & MANWARING.

Hermann, Sept. 1859-42.



## TREES! TREES!!

CAREW SANDERS & CO.

OF THE

### SAINT LOUIS NURSERY,

Desire to inform their customers and the public that they have an unusually large and fine stock, at

Wholesale and Retail, of

### Fruit, Shade, and Ornamental Trees and Plants,

Which they will sell LOW, on account of the hard times.

### Examine our Prices.

APPLE TREES,	Each.	Doz.	Hund.
6 to 8 feet, extra fine,	\$0.15	\$1.75	\$12.50

PEACHES,	0.15	1.75	12.50
----------	------	------	-------

PEARS,			
Standards, splendid trees, 6 feet, 50	4.50	35.00	
Dwarfs, " first class, 40	4.00	30.00	

CHERRIES,			
Stand. and dwf. " " 0.40	4.00	30.00	

APRICOT and NECTARINE,			
Splendid trees, first class, 6.30	3.00		

QUINCE,			
Angers, Orange and Portugal, fine, 30	3.00	20.00	

GOOSEBERRIES,			
Strong plants, 0.10	1.00	6.00	

RED and WHITE CURRANTS,	0.10	1.00	6.00
-------------------------	------	------	------

BLACKBERRIES,			
Lawton, Dorchester and White, 1.00	4.00		

RASPBERRIES,			
Six or more kinds, 1.00	2.00	to 5.00	

RHUBARB,			
Linnæus, and other fine sorts, 1.50	8.00		

STRAWBERRIES,	Doz.	Hund.	Thous.
---------------	------	-------	--------

Wilson's Albany, Triomphe de Gand, Fillmore, &c. \$0 25	\$1.50	\$8.00	
---	--------	--------	--

Longworth's and Downer's Prolific, and other fine sorts, 1.00	5.00		
---	------	--	--

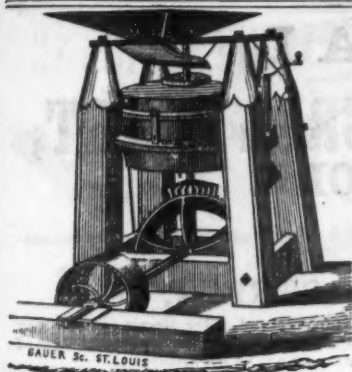
ASPARAGUS PLANTS,			
Large Purple Top, 1 year, 0.50	4.00		

GRAPES,			
Catawba and Isabella, 1.00	5.00		

Together with a splendid assortment of Evergreens, all sizes; Shade Trees—Elm, Maple, Ash, Catalpa, Buttonwood, and others for streets, parks, and lawns; also, Flowering Shrubs, Roses, Vines and Creepers, Herbaceous and Bedding Plants, all for sale low.

Letters of inquiry promptly answered. For further particulars, address CAREW SANDERS & CO. St. Louis, Mo.

CIRCULAR.—OUR PRICED LIST for Spring of 1861, of STRAWBERRIES, RASPBERRIES, BLACKBERRIES, GRAPES, CURRANTS, GOOSEBERRIES, &c., &c., is now ready, and will be sent to all applicants, enclosing stamp. J. Knox, Box 155, Pittsburgh, Pa. [Jan. '62.]



## Mill Furnishings.

Established 1835.

### TODD'S CHALLENGE.

As the under stone revolves, they may be run to a high speed without choking, and having RUBBER SPRINGS, patented by us, they **WILL NOT BURST WHILE RUNNING**, when pieces of iron get between them, as many mills have done on the stiff principle. Our spindles have steel toes and ines, with set screws at both ends, so that the faces of the stones can be kept parallel with each other, and the meal be ground even enough for Flour, which are important improvements, insuring SAFETY TO THE MILL TENDER, and good work, and ought to be put in all lower stone mills.

### IRON BACK MILLS.

The top Stone is the runner and operated the same as the ordinary flouring mills; their construction is simple and substantial and of the best material. Any good careful hand can run them.

#### Todd's Portable Flouring Mill.

This mill is simple, compact and complete, calculated to grind and bolt for the best custom or grist work—can be packed so as to ship to any place, and can be put together by any good mechanic.

Various sizes and prices.

Importers of DUTCH BOLTING CLOTHS, FRENCH BURR MILL STONES. Dealers in RUBBER BELTING, STEAM PACKING, HOSE, &c.

Manufacturers of Machine Stretched LEATHER BELTING, Cemented and Riveted.

Address, G. & C. TODD & Co.

No. 212 North Main Street, St. Louis, Mo.

Manufacturers of Machine Stretched LEATHER BELTING, Cemented and Riveted.  
May '61, ly.

#### Native Evergreens, for the Spring of 1862.

The subscriber, for a term of years, has devoted much time and attention to collecting and supplying Nurserymen and others, with NATIVE EVER-GREEN PLANTS. Feeling capable of giving entire satisfaction, he would solicit orders from those wishing trees, the present spring, of the following varieties:—

Balsam Fir,	5 to 12 inches,	-	\$5 per 1000.
White Spruce,	" "	-	" "
Arbor Vitæ,	" "	-	" "
White Pine,	" "	-	" "
Hemlock,	" "	-	" "
Larch,	" "	-	" "

Such trees only are selected as are supplied with good fibrous roots, and are healthy plants. The price, \$5 per 1000, covers the expense of packing and delivering at the railroad depot or express office. They will be securely packed in light boxes, with moss, in the best manner, and can be sent to any part of the country with safety. Early orders respectfully solicited.

Address, JAMES A. ROOT, Skaneateles, Onondaga Co. N.Y. [mar2t

#### PENDLETON P. ELLIS,

COMMISSION MERCHANT, AND MERCHANTS, MECHANICS AND FARMERS' GENERAL AGENT,  
No. 127 North Third St., 3 doors from Washington Av.  
ST. LOUIS, MO.

Will attend to the purchase and safe shipment of Dry Goods and Groceries, Tools of every description, Agricultural Implements, Farm and Garden Seeds, Machinery of any kind, Wagons, Iron and Castings, Sewing Machines and fixtures, County Seals and

Presses, Drugs and Patent Medicines, Books, Stoves, Coal Oil and Lamps, new patent articles, &c. War Claims placed in safe hands for adjustment.

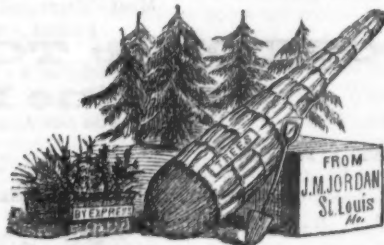
N.B.—Remittances to accompany the order.

In offering our services to the people in the country in this business, we trust to be of advantage to them, and specially so these war times; and we shall use every effort to make it to the interest of customers to send us their orders and consignments.

Consignments of Produce solicited, and prompt returns made.

Letters asking information, prices of articles, or on business, will be answered by return mail. [mar'62

#### St. Louis Branch of the Bloomington Nursery.



#### J. M. JORDAN, NURSERYMAN,

Wholesale and Retail Dealer in

TREES, PLANTS, SHRUBS, AND BULBS, ALSO GRAPE VINES, including Choice and leading varieties. At Prices to suit the times. Office, No. 11 South Fourth St., between Market and Walnut St. [2t

# REMOVAL OF THE WESTERN AGRICULTURAL DEPOT, AND SEED STORE.

We take the occasion in this number of the "FARMER" to announce to our numerous friends and customers, our removal from our old stand No. 68, to that of

**NO. 56 NORTH SECOND STREET,**

a few doors below our former location, and in the same square, between Pine and Olive streets, where they cannot fail to find us. We would further state that with the removal we have altered the name and style of our firm. Our patrons will please bear these facts in mind so that they may not be led astray.

In our new location we are happy to state that we have increased facilities for conducting our business, and that we have not been idle in the course of the past year in making what necessary preparations and changes as a thorough knowledge of our business dictated.

Farmers and others will find by giving us a call that we have anticipated their wants in the selection of a large and well assorted stock of

## AGRICULTURAL & HORTICULTURAL IMPLEMENTS,

Together with a large assortment of

## LANDRETH'S

## CELEBRATED GARDEN SEEDS!

Of the Crop of 1861,

just received direct from them fresh and pure, with every package warranted. With our knowledge of this branch of our business, our friends can rely upon getting seeds that are not only pure, but true to name in every instance, and none others are offered or to be found in our establishment. In conclusion we would state that we would be glad to see all our customers and friends at our **NEW STORE**, where they will find that we are willing to sell them anything in our line and at lower prices for cash than can be purchased at any other establishment in the West.

BLUNDEN, KOENIG & CO.

## BLUNDEN, KOENIG & CO.,

### LATE J. GARNETT & CO.,

Wholesale and Retail Dealers in

### Seeds, Agricultural Implements and Machines,

Comprising Plows of all patterns, Harrows, Corn Mills, Corn Shellers, Fanning Mills, Grist Mills (Straub's Patent), Farmers' Portable Boilers, Lard and Cheese Presses, Sausage Meat Cutters and Stuffers, &c. &c. &c.

FRESH AND GENUINE

## COTTON & TOBACCO SEED,

Together with a large assortment of

### Genuine Field Seeds.

We are also the Sole Agents in St. Louis for the sale of

JAMES P. BLUNDEN.

WILLIAM KOENIG.



Give us a call at our New Store, NO. 56 NORTH SECOND ST., ABOVE PINE ST., ST. LOUIS, where you will find everything necessary to your wants and at prices that defy competition.

BLUNDEN, KOENIG & CO.

Send for Almanac for 1862, and Illustrated Catalogue—GRATIS.